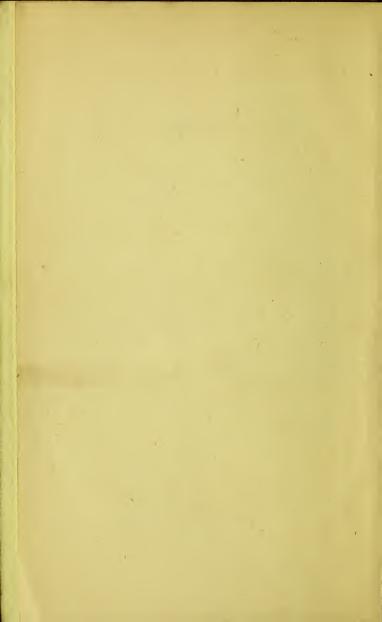
# D# YEOMAN on cough influenza asthma etc.

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M. H. Gordon



## CATARRH, INFLUENZA,

## BRONCHITIS,

AND

## ASTHMA:

THEIR CAUSES, SYMPTOMS, AND RATIONAL TREATMENT.

BY

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#### PREFACE.

THE generous tone in which my little volume on consumption has been noticed by the Reviewers, and the rapid diminution of the First Edition, will, I hope, justify the appearance of the present work.

Without affecting greater philanthropy than is common to my profession, I may yet claim the endeavour to simplify the description and treatment of some most painful maladies. My aim, however, is not to make every one his own doctor but to furnish so much information to the Invalid and the friends of the Invalid, as will enable them to second the efforts, and go hand in hand with the Physician; and, that by knowing what ought to be done for their cure or alleviation, they may have confidence and hope in what is done.

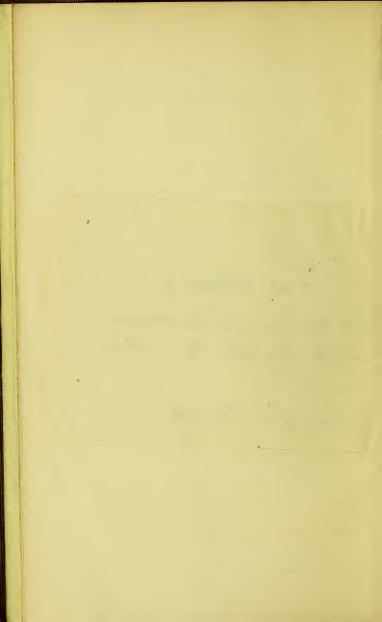
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### CATARRH.—"A COLD."

The symptoms of common catarrh are familiarised to the inhabitants of this climate by abundant experience in their own persons, as scarcely one man in ten thousand passes a winter without having a cold of some description; and, as every one esteems himself competent to be his own doctor, it may be thought little need be said of the treatment: indeed, in simple cases the medical management may be safely confined to the usual domestic and popular remedies. When, however, we consider the serious and fatal complaints that have their origin in a slight cold; that it may be the prelude to various inflammatory diseases; and that consumption may be one of its terminations, the propriety of commencing the history of disordered respiration with catarrh, will not be questioned.

Catarrh is a febrile affection, in which there is some trifling inflammation of the mucous membranes, especially those which line the air passages, and an increased secretion of mucus.

The common cause of catarrh is cold, however applied to the body, but particularly when it is combined with moisture. Exposure to cold when the body is heated,—thus arresting the perspiration; wet feet; remaining in damp clothes; insufficient clothing; a damp atmosphere; sitting in a room filled with smoke; sleeping in a strange bed; removing from one house, or from one town to another; in fact, every thing that suppresses perspiration, or suddenly diminishes, or even alters, the temperature of the body and the immediate atmosphere, may be considered in a greater or less degree, as near or remote causes.

As the complaint assumes different symptoms according to the part especially affected, I shall consider it, first, as cold in the head (coryza), when the mucous membrane of the nostrils and eyes are affected; secondly, as cold on the chest (pulmonary catarrh), when the mucous membrane of the air passages is inflamed; and, thirdly, as influenza, when the attack is sudden and epidemic;—that is, attacking a multitude of persons at the same time and at the same place. Catarrh also affects other mucous membranes, and those of the stomach and bladder are not free from its invasion.

#### COLD IN THE HEAD, -CORYZA.

Cold in the head although considered a very simple disorder, is one that causes the greatest discomfort: the whole body appears to be unhinged; flying pains are felt in different parts; the spirits are depressed, and the patient is miserable. The approach of an attack is generally announced by frequent chills and shivers; there is a sense of fulness in the head, and weight or pain in the forehead; the nostrils are dry and "stuffed up," which renders breathing through them difficult, and induces frequent and ineffectual attempts to remove the obstruction by blowing the nose; afterwards there is a secretion of thin watery mucus, that rapidly increases in quantity, and is so acrid as to excoriate the nose and upper lip: the sense of smell is impaired, or altogether lost; the patient sneezes violently and frequently; the eyes

are red, inflamed, and suffused with tears, which roll down the cheek; the throat is sore, and the act of swallowing painful; there is some tickling and irritation at the upper part of the windpipe, causing a constant dry cough; there is tightness and uneasiness across the chest, and sometimes difficulty of breathing. Rheumatic pains are felt at the back part of the head and neck, and the whole surface of the body is tender; the appetite fails, thirst increases; the tongue is coated and white, and the taste more or less perverted; the patient complains of being cold, whilst the skin is dry and parched, or burning to the touch; the pulse is accelerated, and towards evening all the symytoms increase in intensity.

When the attack is severe, it is attended with more or less fever; violent pains and stiffness are experienced in the limbs and down the back and loins; the heaviness in the head becomes a stupor; the patient is weary, restless, and peevish; he is chilly, the least breath of cold air is acutely felt, and he creeps towards the fire; there is some hoarseness, and a sense of roughness and soreness in the windpipe; the chest feels tight, stuffed, and constricted; the breath is hot, the cough frequent, and the disorder then runs into catarrh on the chest.

In some cases the throat and stomach are more particularly implicated; we then find the most distressing symptoms to be nausea and sickness, a burning or heat, or gnawing pain in the stomach, which is increased on pressure, and loathing of food.

Catarrh has a disposition to travel, and generally begins above and proceeds downwards; the eyes and nose being first affected, then the throat, and sometimes the custachian tubes, which induces deafness: afterwards the gullet and stomach suffer, causing sore-throat, qualmishness and indigestion; or the trachea and bronchial tubes are inflamed, giving rise to cough, and expectoration and bronchitis: as it leaves the upper part it increases in severity in the lower, so that which was a trifling cold in the head may become a serious affair in the chest.

In ordinary and favourable cases the disorder is at its height about the third day, and then begins gradually to decline; the thin serous fluid secretion from the nose becomes thicker, and as it becomes thicker, it becomes less irritating also; it is more viscid, opaque, and yellow; the swelling in the membrane of the nose subsides, it is less raw and sensitive, and is sometimes succeeded by an eruption or "breaking out" around the mouth. About the fifth day, the secretion resumes its natural quality and natural quantity, and on the seventh day the disorder is entirely removed. This is the course of cold in the head, when not complicated with inflammation in the trachea or bronchi. It should be recollected that the individual during convalescence, is most susceptible of taking fresh cold from the slightest cause, and until every symptom is entirely banished he should be careful of the least exposure to cold or damp air, as a relapse or "fresh cold" always brings back the old symptoms in greater violence.

Catarrh in the head is frequently the fore-runner of measles and small-pox; it usually precedes, if it does not cause, rheumatism; and, although of itself seldom attended with any danger, yet it often lays the foundation of disease, which, in time yet to come, may jeopardise life. In my work on "Consumption" I have quoted a vigorous passage from Mr. Warren's "Diary of a late Physician" that is so applicable to the present subject, and expresses my own ideas in language so much more elegant and emphatic than any

I could employ, that I again adopt the sentence. "Let not those complain of being bitten by a reptile, which they have cherished to maturity in their own bosoms, when they might have crushed it in the egg. Now, if we call a slight cold 'the egg,' and pleurisy, inflammation of the lungs, asthma, consumption, the venemous reptile the matter will be no more than correctly figured. There are many ways in which this 'egg' may be deposited and hatched. Going suddenly slightly clad from a heated to a cold atmosphere, especially if you can contrive to be in a state of perspiration - sitting or standing in a draught, however slight-it is the breath of death, reader, and laden with the vapours of the grave. Lying in damp beds, for there his cold arms shall embrace you; continuing in wet clothing, and neglecting wet feet; these and a hundred others, are some of the ways in which you may slowly, imperceptibly, but surely, cherish the creature, that shall at last creep inextricably inwards, and lie coiled about your vitals. Once more, again, -again-I would say, ATTEND to this, all ye who think it a small matter to neglect a SLIGHT COLD."

#### THE TREATMENT.

The first object should be to keep the body warm and of an equable temperature, so as to get rid of the chilliness; to avoid any re-exposure to whatever may be a cause of the complaint; to avoid stimulating the body by too exciting or nourishing diet; and to induce some exhalation or perspiration from the skin. It is an old fashioned notion that we may benefically increase the temperature of the body by wine-whey, spiced wine, brandy and hot water, gruel and rum, and many other pleasant beverages, which are more agreeable to the palate than useful in the removal of the

disorder: whenever wine or brandy be added to hot drinks, headache will invariably follow, and the risk of exciting fever is sufficient to forbid their use. The safest, and consequently the best plan, is to consider "a cold" actually as a departure from health that demands proper and immediate remedies. With this view I would advise, when necessary, that the bowels be gently acted upon by a warm mild aperient, rather than by any of the cold saline purgatives: fifteen or twenty grains of rhubarb powder, with a few grains of ginger; or two four-grain pills of the compound rhubarb pill, will be, in general, sufficient. At bed-time the feet may be put in hot water, as hot as can be borne, -a table spoonful, or two, of the flour of mustard added to the water, increases the good effect ;-a diaphoretic, as eight or ten grains of Dover's powder; or, from twenty to thirty drops of antimonial wine, with a drachm of the spirits of sweet nitre in a small quantity of camphor mixture, should be taken whilst employing the foot bath, and when the patient is in bed he should take a posset, or basin of warm gruel; if the gruel or other warm drink be taken with, or immediately after the diaphoretic, it is apt to induce nausea and sickness instead of perspiration :- he should sleep with some additional bed-clothing, so as to encourage perspiration, and to avoid checking it when induced. A warm bath, or a vapour bath, when easily procured without the risk of exposure to cold afterwards, is preferable to the foot bath, as a general bath more speedily excites some considerable exhalation from the skin.

The patient should abstain from animal food and stimulating drinks; a spoon diet of arrow-root, sago, tapioca, gruel, "tops-and-bottoms," or biscuit, soaked in weak tea, or any similar article of invalid diet must be the only nourishment allowed; and he should drink plentifully of warm diluent fluids, as gruel, barley water, linseed tea, mucilage of gum arabic, or whey.

If the fever run high it will be necessary to give some saline febrifuge medicine; as, small doses of James's powder, nitre, or antimonial wine, or subcarbonate of potash, three or four times a day. The following is a simple and appropriate "fever mixture."

Take—Nitrate of potash, 1 scruple;
Potassio-tartrate of antimony, 1 grain;
Syrup of lemons, 3 drachms;
Distilled water, sufficient to make 8 ounces;
Mix. Dose—Two table spoonsful every three or four hours.

In cases where there is much fever and inflammation, with pain in the head, chest, or throat, it may be necessary to abstract blood from the arm or to apply leeches; when the throat is much inflamed and sore a mustard poultice will frequently afford great relief; inhaling the vapour of boiling vinegar and water is sometimes equally efficacious. The uneasiness and annoyance in and around the eyes and nostrils may be materially diminished by placing the head over the steam of boiling water, or bathing the eyes with hot water. When the cough is troublesome and there is roughness and irritation at the back part of the throat, demulcents may be advantageously used; such as, almond emulsion, gum mucilage, or linseed tea: or a "cough mixture" thus composed may be taken occasionally.

Take—Ipecacuan wine, 2 drachms;
Syrup of the balsam of Tolu, 4 drachms;
Cinnamon water sufficient to make 6 ounces;
Mix. Dose—One table spoonful.

Opiates should be prescribed with great caution, as they are apt to check the secretion from the irritated membranes and thus induce inflammation, or increase it if it already exists: whenever there is a disposition to fulness or plethora

they are inadmissible, but to those who are habitually troubled with a slight catarrh, and when there is nothing to contraindicate its use, twenty drops of laudanum taken at bed-time, will frequently afford relief, and arrest what otherwise might prove a tedious attack. When the sleep is much disturbed, a full dose of Dover's powder will generally induce a comfortable night's rest; a gentle laxative, however, should be taken the following morning to remove any constipation that may result.

If the catarrh becomes chronic and has affected the individual for any length of time, one of the best modes of getting rid of the disorder when confined entirely to the head, is by inducing perspiration by good brisk exercise in the open air, or exercise with dumb-bells, or even the child's game of battledore and shuttlecock: great care, however, should be taken so as not to catch fresh cold by allowing the perspiration to be suddenly arrested. Sometimes a chronic cold is cured by a good dinner and an extra glass of wine.

I must not omit to mention a plan of treatment that has been recommended by Dr. Williams, which consists of total abstinence from liquids; he says, "To those who have the resolution to bear the feeling of thirst for thirty-six, or forty-eight hours, I can promise a pretty certain and complete riddance of their colds, and which is perhaps more important, a prevention of those coughs which probably succeed to them." I confess I do not possess the required resolution: I attempted the treatment, but would rather sneeze and snuffle for a month than endure the torture of unquenched thirst for six hours. On such excellent authority as Dr. Williams, I offer the suggestion to such of my readers as may feel disposed to give it a trial.

# PULMONARY CATARRH—COLD ON THE CHEST—COUGH.

Pulmonary catarrh, or cold on the chest, is distinguished from other diseases of the mucous membrane of the air tubes by alteration in the character, by profuseness, or by diminution of the mucus secretion, and by the absence of active inflammation; when acute inflammation is present the disease then becomes branchitis.

A few words descriptive of the "air tubes," "bronchial tubes," or "air passages," by which the atmosphere is conveyed to the lungs, will assist the reader to comprehend the disorders to which they are liable.

The larynx, or organ of the voice, opens into the mouth, and is situated anterior to the gullet; it terminates in the trachea, or wind-pipe, which is a hollow tube, composed of from fifteen to twenty fibro-cartilaginous arches or rings,incomplete at the back part,-contained or enveloped in a fibrous, slightly elastic membrane, which connects them together, and supplies the deficiency at the posterior part: the trachea descends some short distance (to the second or third dorsal vertebra) and then divides into two lesser tubes. called the right and left bronchi, similarly formed, except that the rings are thinner and smaller; the bronchi again divide and subdivide into innumerable lesser tubes or branches, like those of a tree, which spread throughout the lungs, and ultimately terminate in the bronchial cells, into which the air penetrates: a number of these cells, united together by a delicate substance, termed cellular membrane, constitutes a pulmonary lobule; the union of these lobules forms the lobe, and by the junction of the lobes (three in the right and two in the left lung) the whole lung results. Thus the substance of the lungs is formed of minute bronchial, or air cells, cellular membrane, the pulmonary blood vessels and nerves, and lymphatic and bronchial glands. The lungs are soft, spongy, yielding bodies, of a conical form; the base resting on the diaphragm, or muscular partition between the abdomen and the chest, and the apex in contact with the first rib, immediately beneath the collar bone: they are contained in two serous membranes or bags, called the pleura of the ribs, and the pleura of the lungs. The windpipe and the bronchial tubes are lined with a delicate membrane, called mucous membrane, which in a state of health, is kept constantly moist by a secretion of mucus—a bland un-irritating fluid, such as is secreted in the nose, mouth, stomach, and intestines.

I now proceed to consider the effects produced on this membrane and its secretion by cold; namely, Dry Catarrh, and Humid or Mucus Catarrh.

# DRY CATARRH, OR COUGH WITHOUT EXPECTORATION.

Dry catarrh, or cough unaccompanied by expectoration, is caused by those influences, already detailed, which induce a common cold.

The first effect of cold applied to a mucous surface is to render it dry,—its secretion is suspended; it becomes tumid, swollen and thicker than before, and as these effects increase the parts affected become in a state of inflammation, and this inflammation, when the membranes of the air passages are implicated, constitutes bronchitis.

The symptoms of dry catarrh are dependent on the extent of mucous membrane implicated in the disease: in some cases it may excite little disorder of the general health, the only symptom being a slight shortness of

breath, with increased difficulty of respiration during the least exertion, and the occasional expectoration, especially in the early part of the morning, of a small portion of tough tenacious mucus of a grevish colour. In other cases, and they are the most frequent, there is a tickling, teazing cough, which comes on in paroxysms; the difficulty of breathing is increased, and sometimes it threatens suffocation; there is considerable tightness and oppression across the chest, which is ultimately relieved by the expectoration of hard dense pellets of mucus of a dark or yellow colour: sometimes these pellets are surrounded by a copious secretion of phlegm, and occasionally they are brought up almost as a substance. After a time the expectoration becomes more copious, and is of a white glairy colour; in the advanced stages of extreme cases it loses its mucus character, and becomes muco-purulent or purulent, and occasionally it is tinged with blood.

I have seen many instances in which the cough was trifling, scarcely sufficient to excite observation, and then oppression at the chest or difficulty in breathing was the only symptom that gave uneasiness: in such cases, when expectoration was induced, and the bronchial tubes became less embarrassed, the patient continued, for a time, free from disturbance.

A dry cough is most exhausting to the strength of an invalid, as the repeated ineffectual attempts to obtain relief by expectoration severely strain not only the muscles of the chest, but also the lungs, and without relief be quickly obtained inflammation is set up, and we have then to contend with the more alarming disease, bronchitis.

Dry catarrh if it does not terminate favourably within a few days, either runs into humid catarrh, bronchitis, or becomes chronic. Chronic catarrh occurs more frequently in persons advanced in years, especially those who have lived freely, and have a disposition to gout or rheumatism; it is a common result of functional derangement of the stomach, liver and bowels, and individuals disordered or "used up" by long continued excesses and irregularities are rendered most susceptible of an attack on the least exposure to cold.

The outward signs of dry catarrh sometimes assume the appearance of asthma, for which disease it is frequently mistaken. I may here notice the valuable auxiliary we now possess to enable us to distinguish correctly each and every disease and condition of the chest, by means of the stethoscope, which, in fact, gives to the physician another sense, and enables him to detect with certainty the precise disease, and its precise situation. A short account of this instrument, extracted from my little work on "Consumption," will not be irrelevant here.

"The stethoscope was invented in the year 1816 by Laennec, a French physician. It is generally made of cedar wood, of a cylindrical form, about ten inches long, about an inch broad, having a cylindrical perforation throughout its whole length, an expansion or cup at one end, and a flat surface at the other; in effect, it is a wooden tube. Its use is to convey the sound emitted in the chest to the ear, and enable us to practise mediate auscultation—that is, listening to the sounds and movements of the heart, lungs, etc. We all know that when a person has a cold, and the bronchial tubes are loaded with mucus, the air rushing through them gives rise to a wheezing in the chest, or a rattle in the throat; and if we apply the ear to the side of a person, we may hear the heart beat. It was left to Laennec to notice, and to turn to practical account,

the indications thus afforded of the actual state of the working machinery of our internal organs. At the time of his discovery he was physician to the Necker Hospital, in Paris, and in its wards he instituted a series of observations and experiments, first to ascertain the regular and and healthy sounds which were elicited in natural, vigorous respiration and inspiration, and afterwards those alterations and changes which were caused by disease. The result of his experiments was, to use his own words, 'a set of new signs of diseases of the chest, for the most part simple, prominent, and certain, and calculated, perhaps, to render the diagnosis of these diseases as positive and circumstantial as that of many affections which come within the immediate reach of the hand or instruments of the surgeon.'

"One of the first physicians who introduced the stethoscope into England was my late respected teacher, Dr. Thomas Davies, who was the friend and pupil of Laennec during the time he was perfecting his discovery. Dr. Davies, on his return from Paris, where he paid much attention to the nature and treatment of pulmonary and heart affections, opened a class at his own private residence, which was attended by many practitioners in the metropolis, and from that period the value of the stethoscope has neither been doubted nor neglected."

Dry catarrh, when unattended with aggravated symptoms, rarely comes under the notice of the physician; when, however, the symptoms I have recited increase in violence, when the cough is frequent and suffocating, the expectoration difficult, the breathing gasping and laborious, the pain and constriction oppressive, darting and deep-seated, the disease has then become bronchitis, the too frequent sequel of a neglected cold.

#### THE TREATMENT.

The treatment of dry catarrh—conjointly with that advised for cold in the head,—must be so directed as to remove the thickened and congested state of the bronchial membrane, and to falicitate the expectoration of the dense mucus that obstructs the tubes. In the first place, it is necessary that the patient should avoid exposure to a cold, foggy, or irritating atmosphere; the chest should be protected and kept warm; and the general health, which is usually impaired, amended.

Increased warmth will be beneficially afforded to the chest, by wearing next to the skin, a piece of chamois, or stout "wash-leather"; it possesses many advantages beyond flannel, it is free from the annoyance and irritation which "warm plaisters" of all kinds induce; it is cheap, cleanly, and superior to all the flannel or hare-skin "bosom friends" "breast plates," and "chest protectors," that were ever invented. When the avocations of the invalid compel him to be exposed to variable temperatures, he should breathe the warm, bland atmosphere which is afforded by the "respirator"; in the absence of this invaluable boon to suffering humanity, a silk gauze, several times folded, or quilted, should be worn across the mouth during inclement weather.

The diet must be free from all that is rich, indigestible and stimulating; the bowels should be gently acted upon daily; and we should endeavour to give tone and vigour to the system, by tonic medicines and moderate exercise.

The next indication is to facilitate the expectoration, and this is best accomplished by the use of remedies called "expectorants"; as squills, ipecacuan, lobelia inflata, etc. Ipecacuan exhibited in nauseating doses will sometimes give immediate relief, by unloading the bronchial vessels, and, if continued in lesser doses it will prevent the mucus accumulating; squills are of the greatest service when the cough is frequent and teazing; when there is much irritability of the system, with disturbed rest, powdered squills may be advantageously combined with the extract of conium,—as one grain of the former with four grains of the latter, to be taken as a pill at bed-time and again during the day. Opiates in this form of cough are inadmissible; they may afford some momentary relief, but they keep up the cause of the cough, by diminishing the secretion of mucus, and rendering it more difficult to expectorate. I venture to quote the following paragraph from "Consumption" in reference to opium and its preparations.—

"Opium is the basis of all the 'quack' advertised nostrums for cough, asthma, and consumption; the increasing supply which the system demands when once habituated to its use, is not the least favourable point to those mercenary speculators, who make the health of their fellow-creatures the object of commercial enterprise."

When the cough is "hard," great relief will be experienced from inhaling the steam of boiling water, and I have in many instances witnessed considerable benefit by the water being poured on a few hops, and the vapour inhaled through the spout of a tea-pot.

The following are formulæ for the preparation of "cough mixtures" that are useful in promoting easy expectoration.

Take—Ipecacuan powder, 8 grains;
Oxymel of squills, 4 drachms;
Pimento water, 1 ounce;
Mix. Dose—A tea spoonful every three hours.

Or,—
Take—Vinegar of squills, 1 fluid drachm;
Oxymel of squills, 6 drachms;
Cinnamon water, 5 drachms;

Mix. Dose-A tea spoonful occasionally.

Or,--

Take—Distilled vinegar 1½ drachm; Antimonial wine, 1 drachm; Syrup of the balsam of Tolu, 1 ounce; Water, 5 ounces;

Mix. Dose-Two table spoonsful to be taken occasionally.

There are many suggestions bearing upon the treatment of catarrh which will be considered when we come to the treatment of bronchitis.

# HUMID CATARRH, OR COUGH WITH EXPECTORATION.

Humid catarrh, or cough with expectoration, is produced by those causes which incite other forms of cold: it may succeed to a dry cough, and is a frequent result of disordered or weakened digestion, disease of the liver, syphilis or the imprudent use of mercury; it is also an occasional attendant upon gout and rheumatism, and sometimes it is produced by inhaling irritating or noxious effluvia. The aged and weak are seldom free from a periodical attack in the form of a "winter cough" and, persons who are addicted to intoxicating beverages, irregularities and excesses, frequently suffer this severe penalty for their follies.

Humid, or mucus catarrh, in its acute form, more generally attacks persons of a bilious temperament, and usually becomes chronic—that is, constant, and devoid of immediately urgent symptoms,—in those of a lymphatic, or scrofulous habit. Unlike many other diseases, the predisposition is increased by each invasion, and one attack is frequently followed by another; indeed, many individuals are affected several times in the course of a year, they "get a cold upon a cold," and are scarcely ever exempt from catarrh.

In numerous instances, the disease when chronic, presents all the general, and some of the functional symptoms of consumption of the lungs, and becomes the cause of considerable anxiety to the friends of the invalid. It is a too common custom with some medical practitioners who are so wanting in candour as to assert that consumption is curable, to call every affection of the chest by that name, when, in truth, the existing disease may be far less formidable, and, to some extent, free from danger; so that, under ordinary treatment, the patient gets well, the practitioner gets fame, and the case is dotted down in a book as another victory won from the enemy, consumption. I am daily consulted in cases which I am assured are consumptive, but which on examination, I find to be mucus catarrh of long standing; and the ease with which the symptoms are relieved, and the cure ultimately obtained is positive evidence of the less dangerous nature of the complaint.

#### THE SYMPTOMS.

The symptoms being tolerably familiar to every one need not detain us long in description, were it not that "cough" of every degree is popularly considered as one and the same complaint, and consequently treated alike in all cases, such a course is fraught with uncertainty and risk, that may be avoided when the character of the disease is correctly distinguished, and the treatment adapted to the peculiar state and cause of the affection.

The earliest symptoms are those of common cold, with a tickling or feeling of roughness at the back part of the throat, and at the commencement of the windpipe; the cough comes on in paroxysms, attended with difficulty of breathing, and tightness or pain across the chest; there is hoarseness or huskiness of the voice, and in some cases the patient can scarcely speak above a whisper. The expectoration is at first a thin, colourless, glairy fluid, "frothy on the surface, and underneath like the white of an egg diluted with water;" after a time it is of a thicker consistence, and puts on the well-known appearance of phlegm; it accumulates rapidly in the air-passages, and induces a constant irritation and inclination to void it by cough; the windpipe becomes sore, and every breath of cold air adds to the pain and aggravates the other symptoms.

As well as these pulmonary symptoms, there is some considerable disturbance of the general health: the pulse is accelerated, and the surface of the body is alternately flushed with heat, or damp and chill with cold perspiration; the spirits are depressed, the patient is languid and indolent, and the eyes betoken dulness and want of expression. As the disease progresses, the tightness across the chest becomes more oppressive, the cough is aggravated by the least exertion, particularly by walking fast or going up stairs; its frequency renders the chest tender and sore, or, as patients sometimes describes it "raw"; occasionally there are sharp darting pains across the breast: or pain closely resembling that of rheumatism, if it be not actually rheumatism, is experienced in the muscles of the chest, the shoulders, and between the blade bones: the appetite is precarious, and the patient gradually loses strength. All these symptoms are generally more violent towards evening, and during the night.

When the expectoration is profuse, the patient is seized with a fit of coughing so soon as he is in the horizontal position; in some instances the cough is severe in the morning, and returns with violence three or four times

during the day, the expectoration is then thin, frothy, and abundant, but the attack is usually of short duration.

In humid catarrh of old people, the expectoration is thick and viscid, and the cough exhausting and prolonged: young children and debilitated persons suffer acutely from this form of cough, on account of their inability to use sufficient force and exertion to clear the tubes of accumulated mucus; in such cases, the air contained within the bronchial passages may be distinctly heard gurgling and wheezing, as it becomes obstructed by the increased secretion.

After the disease has existed for some days, or when the catarrh is chronic, the expectoration becomes thicker, more ropy, and less in quantity, and, as it decreases in quantity, so it becomes thicker: it is also usually changed in appearance, and is of a yellow, greenish yellow, grey, sometimes darker, or even bluish-black colour.

The expectoration in catarrh is essentially mucus, although in some instances it assumes a purulent aspect. The difference between mucus and purulent expectoration is of considerable importance, as one denotes merely a disordered condition of a natural secretion, and is the result of catarrh and bronchitis; whilst the other—purulent expectoration—is the result, for the most part, of disease and disorganization of structure, and as such, is the sign and product of the ulceration of the lungs, and of consumptive tubercles. Mucus is a viscid fluid, resembling in its healthy state, the white of an egg, but capable of undergoing in disease the changes I have just named; it has a slightly saline taste, and acquires apparent fluidity in water; it is of less specific gravity than water, and floats on the surface; it is soluble in dilute sulphuric acid, and is blackened by

the concentrated acid Pus is a yellow fluid, somewhat like cream; it is found in abscesses, and is formed upon the surface of what are called healthy sores; it is composed of globules of a whitish fluid contained in a transparent liquid; it does not coagulate by heat; it is heavier than water, and sinks when deposited in it.

The duration and importance of humid catarrh is variable, and depends on the state of the individual at the period of its attack; of itself it is not necessarily a dangerous disease, but when the invalid is labouring under other complaints, or is enfeebled by previous illness, it may prove fatal in a few hours. If neglected, the bronchial membranes readily inflame, and cause acute bronchitis; if the subject has weak or irritable lungs, the worst consequences may be apprehended, inflammation of the lungs or of the pleurapleurisy-may ensue, blood may be coughed up, and the end may be the developement of pulmonary consumption. I believe I am within the mark when I say that ten cases out of every twelve of consumption may be traced to a neglected cold and cough, by which the latent disease is called into dangerous activity. By long continuance, a cough which is lightly thought of or scarcely heeded, will impair the strength, waste the body, and perhaps bring on disease of the heart, or otherwise so affect the vital functions as to place the life of the patient in jeopardy. When, however, the subject is strong and healthy, without predisposition to disease, a cough may, in some rare cases, continue for years without materially interrupting the health, being, nevertheless, a sad drawback on the comfort and repose of the individual.

I may remark that in general far less serious results follow a mucus cough that comes on in paroxysms, although most distressing at the time, than when the cough is less severe, but constant.

#### THE TREATMENT.

Mucus catarrh demands the same general treatment as coryza, pursued, perhaps, with more activity: before other remedies are employed, it will be prudent to act gently upon the bowels by a mild purgative, so as to lessen the liability to inflammation, and to promote the more certain action of other medicines. We must then endeavour to remove the accumulated mucus, and restrain its excessive secretion by preparations of those expectorant drugs that cause the separation and discharge of the viscid phlegm with which the air-passages are loaded. The best expectorant for this purpose is ipecacuan, which when the symptoms are acute may be given in such a dose as will act as an emetic, or at least maintain a nauseating effect for some short time. On the continent it has been the practice to use tartar emetic (antimony) with the same intent, and in some cases recorded by Laennec and Rasori, the most heroic doses appear to have been prescribed with much success: I consider, however, that the debility consequent upon its excessive use, is greater than the urgency of the symptoms in ordinary humid catarrh demands; in acute bronchitis, antimony in full doses is invaluable. The lobelia inflata is a most valuable remedy, but requires the greatest watchfulness during its exhibition, as it is apt to induce vertigo and derangement of the stomach. Squills are very useful, and when conjoined with acid as they are in the oxymel and vinegar of squills, their efficacy is increased. I subjoin two or three prescriptions from which benefit may be anticipated in this form of cough.

Take—Ipecacuan wine, 4 drachms;
Tincture of hyosciamus, 2 drachms;
Syrup of Marshmallow (Edin. Phar.) 6 drachms;
Mix. Dose—A tea spoonful every three or four hours.

Or,-Take-Tincture of squills, 4 drachms; Extract of henbane, half-a-drachm; Nitric acid, 20 drops; Syrup of red poppies, 4 drachms;

Water one ounce;

Mix. Dose-Two tea spoonsful occasionally.

Or, Take—Oxymel of squills;

Tineture of squills; Tineture of hops, of each 4 drachms;

Mix. Dose-A tea spoonful occasionally, in half a wine glassful of water.

Or,—
Take—Ipecacuan powder;
Powdered squills, of each 10 grains;
Extract of conium, 2 scruples;

Extract of edition 12 pills.

Mix accurately, and divide into 12 pills. Dose-One every night.

Great relief will be obtained from the frequent taking of such mild expectorants as honey, candied hore-hound, or the jelly of currants or raspberries; the pulp of a ripe orange, or a roasted apple is grateful and not improper; small quantities of bland demulcent drinks, as gum mucilage, linseed tea, barley water, etc., made agreeably acid with lemon juice, may be taken occasionally so as to soothe the irritated mucus surface; -liquorice may be used for the same purpose.

The diet should be plain and nutritive, and consist chiefly of light puddings, with a very small proportion of animal food. All spirituous and fermented liquors must be strongly prohibited. Strong coffee, made by infusion, not by boiling, is the best morning and evening beverage.

At the time that we attend to the local affection - the cough—we must not neglect the general health; we should endeavour to give tone and vigour to the system, so as to gain for it a power of endurance and resistance to cold; the clothing should be warm and always uniform; sudden and unprepared for exposure to cold should be avoided, and

during convalescence, daily exercise in a bracing atmosphere should be persisted in.

When the catarrh becomes chronic, especially in old people, with a viscid secretion expectorated with great difficulty, and laborious breathing, we may employ warmer and more pungent expectorants than those I have before named; such as the stimulant gum resins, ammoniacum, benzoin, and styrax; garlic is occasionally of very great utility. Friction to the chest, by means of a flesh-brush, or what answers equally well, a coarse towel, should be used night and morning; and the application of a slightly stimulating embrocation is invariably productive of benefit.

In that form of mucus cough which is attended with irritability of the system, and thin frothy expectoration, I have prescribed the tincture of hops, with the oxymel of squills with good effect: I am averse to opium, and rely chiefly upon hyosciamus and conium when there is occasion to employ a narcotic: prussic-acid is an invaluable remedy from its power to diminish general sensibility without affecting the functions of respiration and circulation; I need not add that it requires the greatest caution in its administration.

#### THE INFLUENZA, OR EPIDEMIC CATARRH.

The term influenza, which may be fairly considered an English word, is derived from the Italian, and had its origin in the supposition that the disease which it serves to denote, was caused, or ruled by the influence of the stars.

From the earliest period of medical literature, this epidemic has engaged the attention of medical writers; and the history of the disorder, handed down to us by Sydenham, accurately corresponds with its character in the present

day; its invasion, however, is more frequent than formerly, and it has occurred not only in the autumn, but in every season of the year, whether hot, cold, damp, or temperate, and of all epidemics is now the most universal.

Sydenham regarded the disease, in 1675, as a general cough, produced by cold and moist weather, grafted upon the autumnal epidemy, and varying its symptoms; whence the fever, which had hitherto chiefly attacked the head or bowels, now transferred its violence to the chest, and excited symptoms which had often a semblance to those of genuine pleurisy.

During late years it has invariably followed the bilous cholera which prevails in the months of September and October. Its most virulent appearance was in 1837, in January and February, and in the winter months of 1847 and the commencement of 1848, since which time indeed, England, especially the Metropolis, has not been free from the malady.

It has been observed that influenza seems to bear the same relation to ordinary catarrh, that epidemic cholera bears to common English cholera that happens every year, and that it appears to be dependent on some peculiar condition of the atmosphere. Sydenham ascribed its existence to "some occult and inexplicable changes wrought in the bowels of the earth itself, by which the atmosphere becomes contaminated with certain effluvia, which predispose the bodies of men to some form or other of the disease." As it is well known that a specific miasm, or morbid principle of the atmosphere, is the cause of intermittent and remittent fever, we may readily allow that some specific aërial influence is the primary cause of influenza. Corroborating this opinion, is the fact that many domestic animals, as horses and dogs, have been attacked simultaneously with man.

The proximate causes are, great and sudden changes in the temperature, either from warm to cold, or from cold to warm, with dampness and fogs; and, the prevalence of easterly winds may be considered as a natural indication of its advent. The greatest fatality from the disease in 1847, was in the months of November and December, when the prevailing winds were south-west or south-south-west.

There is much diversity of opinion as to the contagious or non-contagious character of the disorder, and although the popular feeling is in favour of its being non-contagious, it must be remarked that it has seldom appeared in any one country of Europe, without appearing successively in every other part; that it sometimes affects every member of a family at the same time, and sometimes it affects them in succession, and that it attacks indiscriminately persons out of doors and in doors. On the other hand, I have heard of the crews of vessels in the open sea having suffered severely, when there could be no possible communion with infected individuals.

Persons of all ages, the healthy and robust, are liable to its attack, but children less than others; in 1837 the fatality amongst elderly people was considerable; in 1847 it overcame the youthful, the middle-aged, and the aged.

Influenza, although lightly treated—"oh! its only a touch of the influenza,"—is a most formidable disorder; less so, however, on account of its immediate symptoms, than by its power to excite and perpetuate other diseases. The general symptoms bear a close resemblance to those of common catarrh, considerably aggravated in degree; it may be readily distinguished from the latter complaint by the extreme debility that attends and follows it. At the onset there is universal chilliness, or rigors, succeeded by sudden flushes

of heat; the skin is at first hot and dry, afterwards covered with perspiration; great pain is felt in the head, which seems as if bound and tightened, there is also considerable confusion or noise in the ears; constant flying pains are experjenced in the limbs and back, especially the loins, and the entire body feels sore and bruised as if beaten with a stick; the strength is suddenly prostrated, there is entire loss of energy, and the patient is overcome with fatigue and lassitude; the spirits are depressed, and he is borne down by mental as well as bodily debility. There is pain and constriction across the chest, particularly at the lower margin of the ribs, accompanied at first with a dry teazing cough and hurried respiration, which causes much anxiety and distress: there is a tingling sensation at the nose, frequent sneezing, and watery eyes, and, as in coryza, a profuse secretion from the nostrils; the face feels stiff and uncomfortable, the lips are frequently covered with an irritable, smarting eruption, and the temples and check bones are sore and painful. The throat seldom escapes, the tonsils become inflamed and relaxed, and the soreness is severe and burning; the windpipe is dry and irritated, and the voice hoarse, or entirely lost; there is loss of appetite, aversion to food, and sometimes nausea and sickness; the tongue is furred and parched, or covered with a ropy, unpleasant mucus, like cream; the thirst is considerable; the bowels irregular, and the urine scanty, thick and turbid.

The symptoms I have just recited are generally present during the first twenty-four or forty-eight hours, and if within this time they do not succumb to proper treatment, the violence of the disease is concentrated in one particular organ, most frequently, the head or the chest. If in the former, the headache is intolerable, shooting up to the crown,

with a feeling as if the head were splitting; the pulse is rapid, sometimes running up to a hundred and twenty or forty; vertigo follows, succeeded by incoherence, and the nights are passed in delirium. When the chest is more especially affected, the disease put on the appearance of inflammation, either in the substance of the lung, the pleura, or the air passages. I am, however, confident in saving that these symptoms are not the result of inflammation, but of some specific influence with which the blood is tainted. A proof that it is not inflammation, but real debility we have to encounter, is, that bleeding reduces the patient without ameliorating the symptoms: that it may ultimately end in inflammation of the pleura or of the lungs, I have seen many examples, but I hold that the disease per se is not one of inflammation. The cough which before was almost a secondary symptom soon becomes constant and harrassing. the expectoration thick, opaque and viscid, like bird-lime, it is expectorated with difficulty, and after a time assumes a purulent appearance; the tenderness about the ribs is augmented, the breathing is laborious and difficult, a pain or stitch is felt in the side, and there is much uneasiness and fluttering around the heart; the languor and debility is greatly increased, and all the general symptoms become more violent.

In a majority of cases, when influenza is not complicated with some severe local affection, the real danger is slight, and the disease is usually overcome in three or four days; when, however, the individual attacked is of feeble constitution, or has any latent disease of the lungs, or is advanced in years, we may then apprehend a more alarming result; for influenza affects each particular infirmity of constitution, it assists all ill tendencies, and gives the last blow to sick-

ness and to old age; the weak lungs, the weak head, the weak throat have to stand the brunt of the infliction. If unchecked by remedies a neglected attack of influenza may terminate in, or be complicated with inflammation of the windpipe, of the pleura, or of the lungs; the brain or its membranes may be inflamed and typhus follow; or the stomach and bowels may more severely suffer, and induce diarrhœa or dysentry; in some cases rheumatism supervenes, in others certain skin diseases, or erysipelas.

The recovery is always slow, and during convalescence, the invalid is liable to a renewed attack, and a return of the symptoms in increased rigour; debility pervades the whole frame, and is greater than that which follows other diseases of greater severity and longer continuance. I have seen patients so weakened, that they could not rise from the horizontal position without fainting, for many weeks after an attack.

#### THE TREATMENT.

The treatment of influenza in mild cases is similar to that required in ordinary catarrh: we must endeavour to allay the fever, diminish the irritation, and afterwards restore vigour to the system. When the symptoms are greater in degree, it will be necessary to confine the patient to the house, if not to his bed; the bowels should be gently moved by rhubarb, or other mild aperient,—especially avoiding excessive purging, for the whole mucous membranes being affected, that of the stomach and intestines has an increased tendency to inflammation when irritated. A diaphoretic,—as ten grains of Dovers' powder, three grains of nitrate of potash, and half a grain of the potassio-tartrate of antimony, should be taken at bed-time,—and during the day a saline medi-

cine containing an antimonial, should be prescribed, so as to induce a healthy perspiration. When the cough is troublesome, the expectoration should be promoted by squills or ipecacuan, or the former combined with gum ammoniac; the tincture of the lobelia inflata, in fifteen minim doses, conjoined with almond emulsion, or mucilage of gum arabic, is an excellent remedy. Opiates at the commencement of an attack invariably increase the febrile heat, and aggravate the head-ache; they also diminish the expectoration, and increase the tightness in the chest; as the disease subsides, and the more urgent symptoms are subdued, they are then of service in tranquilizing the system, and lessening its susceptibility. In many cases I have found great benefit from the early use of an emetic, particularly when there was much pain in the chest, as well as a disordered stomach. soreness of the throat, which is frequently a most painful symptom, may be greatly relieved by some stimulating and astringent gargle; as, infusion of roses with alum; or, port wine with a little tincture of capsicum.

The food should be light, and free from all stimulants, the usual spoon diet only being allowed.

When the disease assumes an aggravated character, with much fever, a hard, dry cough, and great pain in breathing, it will be necessary to give frequent, but small doses of calomel with James's powder, or tartrate of antimony. Two pills, composed as follows, should be taken at bed-time, and one repeated twice during the day.

Take—Dover's powder; Extract of hyosciamus; of each, 8 grains; Camphor, 4 grains.

Mix, and divide into 4 pills Two to be taken at bed time, and repeat one every six or eight hours.

The cough should be soothed by some simple cough medicine, in which the tincture of lobelia, in ten or fifteen minim doses, is a constituent. When the fever is subdued, a blister applied to the chest is of essential service. General bloodletting should rarely be adopted, and however urgent the symptoms may appear, however closely they may resemble inflammation, it must ever be borne in mind that the debility is real, not the result of oppression of the nervous power, but a depression of strength: in fact until we are confidently satisfied that the chest symptoms are the result of active inflammation, bleeding should never be resorted to, scarcely thought of.

By pursuing for thirty-six, or forty-eight hours, a mode of treatment similar to that I have described, we may look for some amendment in the symptoms. The respirations will become less frequent, fuller, and easier; the pulse will decrease in rapidity, and the surface of the body may, happily, be lightly bedewed with a genial moisture. When the treatment advances thus favourably, we may endeavour to diminish the debility, at the time that we allay the cough, by a combination of lobelia and ammonia in the following proportions;—

Take—Decoction of senega, 1 ounce;
Sesquicarbonate of ammonia, 3 grains;
Tincture of lobelia, 15 minims;
Compound tineture of camphor, 30 minims.
Mix. for a draught, to be taken every four or five hours.

As soon as the chest symptoms disappear, we may cautiously direct a more generous diet, and as soon as there is inclination for solid food, and the state of the pulse does not forbid, a portion of lean mutton, broiled, may be allowed daily, together with a table-spoonful of brandy diluted with water. A light tonic, as a wine glassful of the infusion of cascarilla with a tea spoonful of common vinegar may be taken twice a day for a short time—and afterwards, the

sulphate of quinine with dilute sulphuric acid and water, substituted.

## COMPLICATIONS OF THE INFLUENZA.

The most general, nay, the universal complication and result of influenza is debility, -debility of body, debility of mind, and loss of animal spirits. It is surprising how symptoms which frequently are so trivial, scarcely surpassing those of an ordinary cold, should entail on the invalid such a tardy convalescence, and so much loss of strength and vigour. In some cases the terms debility, or weakness most inadequately express the condition of the sufferer, who is prostrated to the helplessness of an infant after labouring under symptoms entirely devoid of present danger for a period not longer than twenty-four hours. It sometimes happens that the patient cannot turn, or elevate himself in bed, his limbs are powerless, whilst the whole frame possesses increased sensation, and increased sensibility. The muscles are painful and tender, the back and loins are racked by pains equal to rheumatism or lumbago, the ankles tremble, the knees ache, and the joints are in a condition similar to those of a novice after a twenty mile journey on a hard trotting horse. The spirits are depressed almost to a state of melancholy; the mind wanders from every agreeable or social idea, to dwell alone upon despondency and care; the temper is irritable, peevish, and discontented, and the invalid cares only to wrap himself up in his own misery, and the warmest blanket he can find.

In those cases in which debility is the leading feature, unconnected with structural disorder, we must rely as much upon the art of the cook, properly directed, as upon the drugs of the apothecary, and conjoin to both quiet, yet cheerful society, which ever proves the happy and efficient helpmate of the physician during the convalescence of his patients.

The diet must be simple and generous; broiled mutton or beef, or chicken, with toasted bread, forming the basis of all nourishment: fluids of all kinds must be taken sparingly, and never hot; wine (sherry) and water may be taken in small quantities two or three times a day; vegetables, fish, soups, and pastry,—and I would include "slops" as well—must be prohibited; in fine, the patient must have a plain, dry, and nutritious diet.

By way of medicine, a wine-glassful of the infusion of cascarilla bark, in which has been dissolved five grains of the carbonate of ammonia, may be taken two or three times a day for four or five days, to be then succeeded by three grains of the sulphate of quinine daily, for a week or two longer. During this time due attention must be paid to the state of the secretions; and, if required, the bowels must be gently moved by some warm aperient, as rhubarb, or the compound rhubarb pill. A short run out of town for a few days, to Brighton, or some other healthy bracing locality, will be of essential service.

The convalescence of elderly persons demands sedulous care and good nursing; every trifling change of temperature, and the least exposure to draughts of cold air must be guarded against, their chambers must be of a genial and equal warmth; their clothing ample, and the feet maintained at a comfortable heat. Their diet must be generous and nourishing; the energies of life should be supported and gently stimulated by aromatics and tonics, which ought, for the most part, to be combined with every medicine they take. Wine in small quantities should be allowed several

times during the day; and that best of all cordials—kind, soothing and affectionate regard from those by whom they are surrounded should constantly promote the efficacy of all other remedies.

Influenza occurring in young persons frequently arouses any latent disposition to other diseases that may be lurking in the system; scrofula in all forms may be thus disturbed from its lair, and its most constant and dangerous result—consumption, nursed to a hopeless maturity. With the youthful, all our treatment during the period of debility and convalescence from influenza should be directed to prevent a relapse of the original disorder, and to give a new tone and fresh vigour to the constitution. In my small volume "On Consumption" I have considered "the means of prevention" in such ample detail, that I refer the reader who may be solicitous on this topic to that work.

Bronchitis is a frequent result or complication of influenza; in the treatment of such cases, however urgent the symptoms may be, we must resort to blood-letting with the greatest caution; indeed, it is only in extreme cases, threatening suffocation, that the lancet is permissible. The remedies appropriate for this complication of influenza will be described hereafter.

Pleurisy is sometimes complicated with influenza; the symptoms of which may be briefly stated to be—hurried respiration, the breathing being performed by a succession of short, jerky gasps; pain or stitch in the side, of an acute, sharp, laneing character; hard and dry, but not frequent cough; the pulse strong, hard, and rapid; the tongue loaded with a thick fur; excessive thirst; scanty and high coloured urine; absence of sleep, and the countenance expressive of considerable anxiety and suffering. Under ordinary cir-

cumstances, the treatment of pleurisy might be summed up in four words, -bleeding, mercurialising, starving, and purging; but when the disease attends or succeeds influenza we are deprived of the chief means of cure, namely, bleeding; for we have not only to aim at the removal of existing symptoms, but also to guard against the sequence of a fever of a low typhoid character. General bleeding must therefore be resorted to with much caution; leeches may be applied to the side with less hazard, and if the relief be not speedy, their application must be followed by a blister, not stinted in its dimensions. Mild purgatives should be used freely, and the usual cooling medicines containing antimonials should be regularly administered. As well as subduing the active inflammatory action by antiphlogistic measures, we have to guard against the effusion of fluid, or coagulable lymph, in or between the two pleura, and this we must endeavour to do by the employment of mercury,-blue-pill, or calomel; small doses of the latter, from one to three grains, combined with a sixth of a grain of opium, to prevent its too free action on the bowels, should be ordered every three or four hours.

Inflammation of the Lungs is another complication; the leading signs of which are acute pain in the side; respiration hurried and painful; difficulty of lying on the affected side; a hard, short cough, with viscid and rusty-coloured expectoration; fever urgent; pulse, frequent, strong, and hard; the tongue coated with a thick fur; thirst, restlessness, a hot skin, and scanty, and high coloured urine. In the treatment of inflammation of the lungs, our chief-dependence is in the lancet, but when it is connected with influenza, the risk of the patient lapsing into a typhoid state after depletion renders the propriety of bleeding doubtful, if not hazardous: in extreme cases when the loss of blood is indispensible, we

must produce an effect upon the system with the smallest possible loss: to this end the blood must be made to flow from a large orifice. When we dare not abstract blood from the arm, leeches may be applied to the chest, or four or five ounces of blood taken away by cupping glasses. Blisters are unquestionably of the greatest importance, but they should not be applied whilst the pulse is hard, nor until the force of the fever has been lowered by leeches or bleeding. Repeated and small doses of calomel and tartar emetic should be persisted in, and in some cases it may be necessary to continue the mercury until the gums are affected. The practice of employing tartar emetic as the chief, the only means of treatment, as the custom is on the continent, has not hitherto gained many advocates in England: the want of success that has attended its extensive use, may, in all probability, be attributed to the amount of stomach disorder with which inflammation of the lungs is generally complicated in our climate, especially during the prevalence of influenza.

If the inflammation goes on to suppuration, with all the attendant typhoid symptoms, stimulants are then called for; of these the best are ammonia, either, wine, and brandy.

A free expectoration being the means which nature most commonly adopts for carrying off an inflammation within the chest, it might be supposed that expectorant medicines would prove useful; in practice, however, the reliance to be placed upon them is very small.

The diet in the earliest stage of inflammation must be absolutely "low;" if typhoid symptoms appear it must then be nourishing and stimulant; and, during convalescence nourishing, but not stimulating.

When influenza degenerates into fever of a low typhoid character, all the general symptoms exist in an aggravated

degree; the countenance wears an expression of anxiety, and the features appear shrunken: there is great pain in the head, dulness, confusion of thought, and dejection of mind; the patient is drowsy, but his sleep is disturbed by frightful dreams; he is roused with difficulty, and replies to questions in a low muttering tone. After a time delirium of a raving character comes on; he is then restless and makes repeated attempts to get out of bed, and afterwards lapses into a low muttering stupor, not sleep. The pulse is frequent, weak, and often intermittent; the tongue is coated with a dry, brown fur, which as the disease progresses becomes almost black; the heat of the skin is excessive, and gives a burning sensation to the touch; the urine is scanty, high colored, and sometimes fœtid; the bowels are relaxed, the evacuations black and offensive. These symptoms afford ample evidence of deranged function in every organ of the body.

The detail of the treatment of continued nervous, or typhus fever would occupy a larger volume than the present; I must therefore only refer to the indications of treatment, which are, to remove all existing causes of irritation, to diminish febrile excitement, to subdue local inflammation, and above all, to economise and support the strength.

The other complications and terminations of influenza, as rheumatism, dysentery, skin diseases, etc., demand treatment peculiar to these several affections,—modified by the cause which has called them into action and the debility which it has induced—the consideration of which would be in a great degree, irrelevant to this little work.

# BRONCHITIS-

# INFLAMMATION OF THE AIR TUBES.

Bronchitis, or inflammation of the mucous lining of the air tubes, is a disease of most frequent occurrence and of the greatest importance, as well from the serious results which may immediately ensue, as from the diseases of which it may become the foundation. It may exist as an idiopathic, or original disease; as the sequel of catarrh or influenza; as a complication of continued fever; or, as an accompaniment of measles, small-pox, scarlet fever, and hooping cough. There is, probably, no other disease which is so variable in its consequences. In some cases it is scarcely considered an interruption to health, and in others it becomes rapidly dangerous and fatal; these extreme results depend on the condition of the persons affected, the extent of mucous surface implicated, and the intensity of the essential symptoms.

The cause of acute bronchitis might be summarily described in one word,—cold; but as this acts in different modes and by different media, some of which are at the time little suspected of inducing disease, or if known, too often neglected, I shall dwell a moment on this part of the subject.

The most injurious effect produced by cold on the respiratory organs, is when it suddenly alternates with warmth; consequently we may frequently trace catarrh or bronchitis to exposure to a cold, damp atmosphere, immediately after leaving a heated and crowded room. How often in our amusements do we acquire a disease which shall embitter, if it does not shorten, the future of our lives. I would earnestly impress this remark on the recollection of my female

readers, and pray their especial attention to the effects which may follow carelessness or imprudence, either in attire, or in change of temperature. "Fashion should be subservient to health; and, with some little care, the one would lose none of its attractions, and the other would attain continued ability for enjoyment. Nothing can be more hazardous than the too common practice, during the inclemency of winter, of women, who in the day time are clad in a Siberian costume of furs and shawls, exposing themselves at night in muslin or gauze, to the cold air of lobbies, passages, and damp pavements, immediately after being heated by exercise in a crowded ball-room, or after inhaling the heated atmosphere of a theatre."\* Two of the most severe cases of bronchitis that I have attended this winter had their origin in such a cause; the one, a young lady, who remained a short time, on a damp, foggy night, at the door of one of the theatres, waiting for her carriage; the other, a gentleman who when on a visit to the suburbs, ran a considerable distance to save the "last 'bus," which on his arrival was filled inside; instead of walking leisurely home, he imprudently mounted the box, suddenly became chilled, and the next morning, he was, as he told me, "barking like a dog." Some people appear so reckless, or so convinced of the supposed hardihood of their frames, that it is only when on a sick bed that they will admit they are susceptible of ordinary influences.

Cold, when conjoined with moisture, as that occasioned by remaining in damp clothes, particularly wet stockings and boots, and sleeping in damp beds, generally induces an attack. I have recently had under my care three or four cases of bronchitis that were referable to a cause which I

<sup>\*</sup> Consumption, by T. H. YEOMAN, M. D.

fear is far from being uncommon; namely, inhabiting newlybuilt houses whilst the walls and plaster are still recking with moisture. Dwelling in kitchens flagged with stone, and imperfectly drained, has, in many instances known to me, proved a constant cause in several members of the same family.

Irritating gases and vapours frequently excite inflammation of the bronchial membranes, and the disease is rife amongst brassfounders who have to inhale the fumes of zinc and spelter; artisans employing the mineral acids, also frequently suffer from an attack.

Bronchitis, like the majority of inflammatory diseases, presents itself under two forms, the one differing materially from the other in the aggravation or diminution of the symptoms. I shall, therefore, first consider acute bronchitis; that is, when the inflammation is intense, and the disease makes rapid progress; and afterwards chronic bronchitis, or that condition in which the cough is constant, the fever absent, and the disease, of itself, divested of urgent or acute symptoms.

#### ACUTE BRONCHITIS.

Acute bronchitis presents the general symptoms of cold on the chest, considerably increased in intensity, with a greater degree of fever. The disease usually commences with some disturbance of the whole frame, as chilliness, lassitude, diminished appetite, stiffness of the limbs, dry skin, quickened pulse, and the ordinary attendants on fever; when the attack is slight, little inconvenience may be experienced, nevertheless it is capable of becoming one of the most fearful complaints to which the respiratory organs are liable.

The first symptom, of a local character, is a feeling of dryness and roughness in the windpipe, which induces the

patient to make repeated attempts to clear the throat by cough, and each attempt is succeeded by greater roughness, or a sense of tittilation; the cough soon becomes frequent, hard, and dry, and in a short time there is an expectoration of a thin mucus, having a saline taste; this, like the discharge from the nostrils in coryza, appears to be acrid and irritating in its nature, and adds to the existing inflammation. With the increased cough there is pain and oppression in the chest, the breathing is difficult and uneasy, so that the patient is conscious of, and apprehensive of each inspiration, and consequently inspires deeply and deliberately.

The cough frequently comes on in violent and irresistible paroxysms that excite almost a feeling of suffocation, and render the breathing more laborious if not gasping: during such attacks the blood is propelled with increased force to the head, the face is reddened, the eyes suffused and injected with blood; and confusion, noise in the head, giddiness, or a throbbing headache supervenes.

So long as the expectoration continues thin, watery, and saline, the cough remains harrassing and frequent; but as it becomes thicker, it loses a part of its irritating properties, and a cessation of the cough takes place, the constriction of the chest is then less and the breathing comparatively free; the pulse which before was rapid, loses its frequency, and the skin is cooled by a genial perspiration; the severity and progress of the disease may be, in many instances, estimated by the condition of the expectoration; a thicker, more opaque, and tenacious phlegm, easily coughed up, always indicating an amelioration of the symptoms. This change in the character of the expectoration takes place in favourable cases about the fourth or fifth day, after which it becomes whiter and less abundant;—this state is sometimes

called the *ripening* of the expectoration;—as the disease draws to a termination, the cough and expectoration is less during the day, causing, however, some annoyance to the patient in the morning and towards evening; after a few days, the disease may subside altogether, or gradually decline into chronic bronchitis.

I have now described bronchitis in its mildest form, in which but a small extent of the bronchial tubes are affected: we will next turn to the disease in its more acute degree, when the inflammation is not confined to the larger air tubes, but extends to their minute ramifications throughout the lungs.

In some cases the general or constitutional symptoms denote a considerable departure from health; at the onset there are frequent rigors, or shivering, followed by flushes of heat; the pulse is quick, full, and irritable; the skin is hot, harsh and dry; pain is felt in the head, particularly across the eyes, down the back, the shoulders and chest; the tongue is foul and white; the urine scanty and high coloured; the patient suffers from loss of appetite, sickness, lassitude, and prostration of strength ;-in effect, he labours under a sharp attack of fever. The symptoms referable to the respiratory organs, are difficulty in breathing, and tightness or constriction of the chest; the lungs feel as though pressed upon by a weight, and the oppression renders the patient anxious and fearful; the cough is frequent, severe, and distressing; each paroxysm greatly aggravates the pain in the chest, which is now acute and lancinating, especially at the part immediately around the breast bone; the voice is hoarse, and the effort of speaking is attended with pain. The expectoration, at first small in quantity, is glairy, frothy, and occasionally streaked with blood; it soon becomes copious,

but its evacuation affords no relief to the symptoms, in fact its secretion and accumulation irritates the tubes and aggravates the cough; towards evening it is more profuse, the fever runs higher, the respiration is more embarrassed, and all the symptoms attain greater force.

These symptoms having continued in this state for five or six days, the patient gradually begins to recover, or gradually begins to grow worse.

When by neglect, or by treatment insufficiently active, the disease takes an unfavourable turn, we usually find on the fourth or fifth day, that the invalid is reduced to a state of debility, or collapse; the pulse becomes quick, irregular, and feeble: the countenance is pallid, betraving considerable anxiety, and the surface of the body covered with a cold, clammy sweat; the strength is exhausted by repeated efforts to relieve the lungs of the accumulated mucus, the cough is less frequent, feeble, and insufficient in power to clear the bronchial tubes, and each attempt to expectorate threatens suffocation; the mucus collected in the larger tubes obstructs the passage of air, which can now be distinctly heard to wheeze and rattle, and the patient is in a position of imminent danger. This state is quickly followed by lividity of the countenance, delirium, and stupor, indicating that by the thickened state of the membranes and the increased secretion in the smaller tubes, the blood is not presented in the cells of the lungs to the action of the air, and that unarterialized blood is circulating in the brain.

Acute bronchitis in its worst form is remarkably rapid in its progress; a state of high fever and extensive local inflammation is quickly followed by great prostration and extensive debility, and in some cases, the result is fatal in two or three days.

The symptoms are materially modified by age. In young children the disease sometimes advances so insidiously as not to present any very alarming aspect, until a fatal termination appears inevitable:—there may be only a little fever, without pain or frequent cough, or indeed any indication to excite greater apprehension than would be caused by a By attentive observation, however, the common cold. breathing will be found hurried, and attended with a wheezing, or whistling in the chest, the child is restless, the countenance pale and heavy, the pulse quick, and the respiration oppressed. This condition, if not speedily relieved, is soon followed by extreme difficulty of breathing, and great rapidity of the pulse, which again may abate for a time, and then the child will probably fall into a disturbed sleep; soon after the dyspnæa (difficult breathing) returns with increased violence, and suffocation ensues.

The aged, and persons of a weakened constitution, are sometimes attacked with bronchitis in a form that closely resembles inflammation of the lungs,-described by medical writers as peripneumonia notha, or spurious inflammation of the lungs. - In such cases the difficulty of breathing, accompanied by a peculiar wheezing, is the first and most urgent symptom; the fever is less acute; the temperature of the skin is scarcely increased, except towards night, although the pulse is usually quick and wiry; -the stomach is affected, there is nausea, a loaded tongue, and great thirst; the expectoration which at first is scanty, afterwards becomes copious, and the patient has frequent attacks of dyspnœa which prevent him lying down; the voice is greatly weakened, occasionally altogether lost. Bronchitis of this type commonly follows humid catarrh, and has a great tendency to pass into the chronic form.

The diagnosis of bronchitis is simple; it is distinguished from inflammation of the lungs, by the absence of the red, or rusty tinge, which the expectoration acquires in the latter disease; and, as has been correctly remarked "there is little likelihood of its being confounded with any other affection; the only fear is, that in its more insidious forms it may escape attention altogether until the mischief is irremediable."

The physical or stethoscopic signs clearly indicate the precise disease; the mucous membrane of the tubes being thickened by inflammation their calibre is diminished, so that in certain parts of the chest the air may be heard passing through with a whistling, or wheezing, or hissing sound, which, occasionally, is more prolonged and of a graver tone, like a note of a violincello, or the cooing of a dove; when the mucus accumulates in the tubes, it gives rise to a bubbling sound, and the natural murmur of respiration is partially lost.

The prognosis, or probable result, of acute bronchitis is of course dependent upon the extent of the disease. In mild cases in which the inflammation is confined to a few of a larger bronchial tubes, with only a slight attack of fever, and not much difficulty in breathing, it may terminate favourably in six or seven days, or be protracted, without any aggravation of the symptoms, to three or four weeks, and then it may become chronic. The character of the expectoration will always afford a true indication of the advance towards health; when it becomes opaque, consistent, and of a pearly white colour, it invariably becomes less in quantity, and the disease speedily terminates; if, on the other hand, it remains glairy and fluid, we may expect a more prolonged attack. During the progress towards recovery, the greatest caution

should be maintained, as by a fresh accession of cold the symptoms may return with renewed violence, and we then find that the expectoration immediately changes, and becomes again thin, watery, and irritating; such a relapse is invariably more severe than the original invasion of the disease, the cough is more distressing, the breathing more oppressed, and what was before almost a harmless complaint, is converted into one of a dangerous tendency.

When the inflammation is more extensive and acute, and the other symptoms are increased in proportion, the prognosis must be guarded; if an amelioration does not quickly follow active and judicious treatment, we may then fear that a state of collapse will succeed, and the patient may be threatened with suffocation; the countenance affords a correct index of this change; it is anxious and sharp, at first deadly pale, afterwards purple or livid; a mucous rattle or gurgling is heard throughout the lungs, and the absence of the respiratory murmur gives faithful evidence of the alarming position of the patient. When bronchitis succeeds to the sudden suppression of an eruptive fever, as the measles, small-pox or scarlet fever, the result is generally adverse.

In some cases acute bronchitis terminates in inflammation of one or both lungs; in others it may induce *emphysema*, or escape of air into the cellular membrane, and it frequently lays the foundation of some serious disease of the heart.

In severe cases in children the inflammation generally extends to the tubes of both lungs at the same time, and considerable danger may be apprehended; sometimes the disease changes into croup. That form of the disease to which old people are more particularly subject—peripneumonia notha is attended with danger, in consequence of the strength of the patient being insufficient to clear the air passages of the

mucus which is so freely secreted, and as the lungs in advanced age lose a great part of their resiliency, they are ill able to bear any abridgment of their respiratory power.

#### THE TREATMENT.

The treatment required varies greatly according to the form of the disease and its intensity: the more simple cases seldom come under the notice of the physician in their earlier stages, as ipecacuan, syrup of squills, warm gruel, and the foot-bath, are the familiar, and in some cases, sufficient remedies, and from the frequency of the attack, every person imagines he can cure "only a cough." In addition to these popular remedies, the diet should be devoid of all that can stimulate, animal food should be used sparingly, or not at all; fermented liquors of all kinds are to be avoided, the bowels moved by gentle laxatives, and the patient confined to the house.

When consulted at the commencement of a cold on the chest in which the bronchial tubes are inflamed, I prescribe a mild aperient, to be followed at bed-time by a full dose of Dover's or James's powder, the feet to be put into hot water, and perspiration encouraged by copious drinks of barleywater, gruel, or other bland fluid: when the desired effects are produced, namely, a free evacuation of the bowels and a profuse perspiration of the skin, the attack is already checked, if not cured, and by confining the patient to home for a day or two, and "loosening" the cough by small and frequent doses of ipecacuan, or tincture of squills combined with liquor potassæ, the inflammation will subside, and be followed by a free secretion of easily expectorated mucus.

When the symptoms are more acute, the cough frequent, the feeling of tightness across the chest urgent, with high fever, and a quick, full pulse, there can be no doubt as to propriety of bleeding, more or less freely, according to the urgency of the symptoms and the strength of the patient: when general blood-letting is contra-indicated, leeches should be applied to the chest, or a few ounces of blood extracted by cupping glasses; after the action of a brisk purgative, as three or four grains of calomel with a scruple of jalap-saline medicines containing nauseating doses of tartarized antimony should be given every second or third hour, which will have the effect of lowering the fever, modifying the mucus secretion and facilitating its expectoration. Mercury given in small and frequent doses is of the greatest service; it may be conjoined with the tartarized antimony in the proportion of half-a-grain of the latter to two grains of calomel; all the dangerous symptoms frequently yield the moment the gums are made sore. When the frequency of the pulse is diminished, and the irritability of the system subdued some counter-irritant should be applied to the chest; blisters I consider objectionable in many cases, as the amount of irritation and uneasiness they create before they "rise" frequently adds to the local inflammation, and certainly increases the irritability of the whole system: considerable benefit will frequently follow the use of tartar emetic ointment, and in some extreme cases I have seen the spirits of turpentine of the greatest service: a mustard poultice is perhaps the speediest, as it certainly is the safest counter-irritant that can be employed.

Digitalis is sometimes adminstered with the view of lessening the action of the vascular system, and thus diminishing the difficulty of breathing and the cough; it is a remedy,—I could add, a dangerous remedy,—that demands constant watching, and should be immediately discontinued whenever it induces any irregularity in the pulse; in preference to its use I generally increase the quantity of antimony when the symptoms are so urgent as to demand an immediate effect on the circulation.

To relieve the cough, the compound squill pill, alone, or in combination with extract of conium, may be given three or four times a day; or ipecacuan and squills, in some bland fluid as in the following prescription may be ordered.

Take—Spermaceti, 2 drachms;
The yolk of one egg, beat together, then add gradually,
Water, 7 ounces;
Ipecacuan wine;
Theture of squills, of each 3 drachms;
Syrup of balsam of Tolu, 2 drachms;

When the cough comes on in fits, a lozenge containing a sixth of a grain of extract of stramonium often proves serviceable: lozenges are admirable vehicles for pectoral remedies—their gradual solution in the mouth assists to lubricate the throat as well as to facilitate expectoration.—The following is a valuable recipe for a lozenge that may be prepared by any respectable lozenge maker, if not at home.

Take—Sugar, 2 ounces;
Manna, 1 ounce;
Extract of lettuce, 80 grains;
Ipecacuan powder, 1 drachm;
Squill powder, 16 grains;

Mix. Dose-A table spoonful.

Mix accurately, and make into a paste with mucilage of gum tragacanth. To be divided into lozenges of 15 grains each and dried on a hot tinned plate. One to be taken occasionally.

In the bronchitis of young children, tartarized antimony must be given in such a quantity as will prove emetic, and continued for a time in nauseating doses; the bowels should be freely purged, and if the symptoms are severe it may be necessary to apply leeches to the chest. So long as inflammatory symptoms are present the diet must consist alone of gruel, arrow root, and the like innocent food.

If the disease runs into the collapsed stage, when the whole system is in a state of debility we must have recourse to very opposite remedies from those already detailed; it will be necessary to clear the bronchial tubes of the mucus which threatens suffocation, by some stimulating expectorant, as the sesquicarbonate of ammonia, in five grain doses, with five minims of laudanum in an ounce of camphor mixture, or decoction of senega; sometimes it is better to give an emetic and repeat it daily ;-I have found great benefit from the use of an alkali that has the power to dissolve and loosen the collected expectoration, and for this purpose the liquor potassæ is preferable. When the rest is great disturbed it is necessary to procure sleep by opiates, and the best is the sixth or quarter part of a grain of the muriate of morphia. In all cases the powers of the patient must be upheld by wine, good nourishment, particularly strong jellies, and the daily use of cascarilla or quinine.

# CHRONIC BRONCHITIS.

Chronic bronchitis although more frequently the sequel of an acute attack, commences also as a common cold, without any highly inflammatory symptoms; it becomes constant for a month or longer, and returns at certain periods, particularly during the winter. It differs from the acute disease in its greater mildness and longer duration, and in many instances it is complicated with other disorders, either of the circulatory or digestive organs.

When chronic bronchitis occurs in early life, it generally succeeds hooping-cough, small-pox, measles, or disease in which there is some cutaneous eruption; it is in more advanced years that it follows an attack of the acute form. I have frequently observed the affection gradually advance

without any decided inflammatory symptoms, and at length induce cough, expectoration, and the peculiar wheeze, equal to that which supervenes to an acute attack, or to the periodical bronchitis of aged people; such cases occur in persons who lead an irregular life, indulge freely in intoxicating beverages, and are exposed to every change of the weather at all hours of the day and night. The disease thus engendered may be often detected in a class of men who are from their avocations subject to these influences, namely, the drivers of public vehicles, cabmen, omnibus drivers, and the now almost obsolete coachman; the husky cough, the hoarse voice, the reddened countenance, the muffled throat, are frequently the outward signs of the disease under consideration. The constant or frequent inhalation of an atmosphere loaded with dust or powders, is often an exciting cause, thus we find the disease rife amongst feather-dressers, leather-dressers, and packers; if the particles of dust are in themselves of a pernicious or irritating nature, the disease, as a consequence, is more frequent and more severe in its effects; plaisterers, stone-cutters, jet-polishers, drug-grinders, those who powder the materials for making china. fork-grinders, and needle-pointers, are seldom, if ever, free from an attack. Sailors rarely suffer from this complaint although exposed to so many adverse influences; this immunity may arise from hardihood of the frame acquired by constant habit, or by the unirritating salts contained in a marine atmosphere.

In the mildest cases of chronic bronchitis the patient complains—or probably does not complain at all, for in some persons approaching the down-hill of life the disease is habitual, and obtains but little consideration—in the mildest cases the patient has a frequent cough with expectoration,

which is increased by certain changes of the weather, as from a warm or temperate, to a cold, damp, foggy, or "raw" atmosphere; consequently it is during the winter and spring that this form of the disease is most prevalent.

As the complaint assumes a more severe character, so does the difficulty in breathing become greater, and with this symptom we discover others that denote a serious amount of obstruction in the respiratory organs. A dull, heavy, oppressive pain is felt in the chest and in the immediate neighbourhood of the heart, which palpitates violently and occasions much distress; the cough is severe and frequent, and towards night is constant and exhausting; there is generally some considerable degree of fever, and the digestive organs are always disordered; there is little inclination for food, and as soon as any is taken it causes pain in the region of the stomach, and augments the tightness in the chest; the tongue is foul, the mouth hot and clammy, and the bowels confined. Should these symptoms continue for any length of time they seldom fail to waste and weaken the body; we then find the pulse small and feeble, there is great debility and emaciation, the breathing is more oppressed, and in some cases the patient is totally unable to breathe when in the recumbent position, and requires to be propped up with pillows, or refrains from going to bed; the least movement or exertion brings on increased oppression and palpitation. and he will try every posture to enable him to breathe with greater freedom. We frequently notice patients during a paroxysm support themselves with both hands while seated on a chair or sofa, by which they elevate the first rib and thus slightly enlarge the cavity of the chest. The voice is hoarse and indistinct, and sentences are spoken with difficulty or disjointed. When the cough is very violent, and the collected mucus difficult to expectorate, the vessels of the face become gorged with blood, the countenance is red or livid, and the patient struggles for every gasp of breath; sometimes a small blood-vessel is ruptured, and spitting of blood ensues; if the expectoration assume a purulent character the patient is weakened by continual night-sweats, diarrhœa is invariably present, together with hectic fever, and other symptoms that closely resemble pulmonary consumption.

The expectoration undergoes every possible change, and the alterations in its character merit the best and constant attention of the physician, as they afford him the surest indication of the condition and progress of the disease. It may be copious or scanty, watery, viscid, or even purulent; it may in colour be of every shade, from white or greenish vellow, to black, or it may be streaked with blood; it is sometimes inodorous, at others, of a faint or fœtid smell. In the milder cases it is discharged without great difficulty, it is tolerably copious, thick, uniform in its consistence, and perfectly opaque; the colour is usually yellow, or greenish yellow, and the odour and taste slightly fœtid. When the disease presents itself in an aggravated degree, the expectoration generally assumes a muco-purulent appearance, and then loses a part of its glutinous nature and becomes creamlike; it is frequently tinged with dots or specks of a black colour, and not unfrequently traces of blood may be discovered; sometimes these little specs are abundant and surrounded by a more fluid secretion which is occasionally of a brownish or ash colour. We may often notice several little hardened lumps not unlike pieces of glue or jelly, coughed up with an accumulation of more fluid mucus; after these are expectorated, the patient experiences considerable relief until they again collect in the bronchial tubes. If the disease is permitted to run on unrestrained by remedial treatment, the expectoration will become purulent, streaked with blood and present all the characters of true pus; in such cases the constitutional symptoms indicate a state of imminent peril; the pulse is rapid, the strength prostrated, hectic fever is established, and the patient sinks under the effects of night sweats, diarrhea and profuse expectoration in the same manner as in fatal cases of consumption.

The signs detected by the stethoscope, are nearly similar to those which mark the acute form of the disease; the respiratory murmur is sometimes heard distinctly, and often louder than usual, occasionally it is obscure and accompanied by a mucus gurgle or rattle in different parts of the chest; whereever the tubes are obstructed by a collection of secretion, or wherever the internal membranes are thickened may be heard a hissing, sonorous, snoring sound. When the inflammation has continued for any length of time, some alteration generally takes place in the structure of the bronchial membrane, it may become softened, thickened, and ulcerated; these states may be clearly diagnosed by attention to the general symptoms and stethoscopic signs. Sometimes one or more of the tubes become dilated, and in several parts of their course form small sacs or pouches, which are, for the most part, gorged with pus; the expectoration then acquires a remarkably fœtid odour.

Chronic bronchitis is easily distinguished from all other affections of the chest except consumption, in severe cases it so closely resembles this fearful disease, that it is only by careful examination and narrowly watching the constitutional symptoms that the one can be distinguished from the other;

in both diseases, as they draw to a close, we find nearly the same signs, particularly hectic, night-sweats, emaciation and diarrhœa. It is by the absence of those symptoms which mark consumption that we must chiefly depend to arrive at a correct diagnosis, and these negative proofs must of necessity be less satisfactory than those which are positive.

In simple cases of chronic bronchitis, the individual may labour under an attack for some time, or for several succeeding winters, without any considerable derangement of health. or abridgment of the ordinary term of life; and we frequently observe elderly people who, with the exception of the distress which a paroxysm of cough induces, are in all other respects free from bodily ailment. In others who are more delicate or have any latent disease, the immediate effects are severely felt, and as well as the affection of the bronchial tubes, the mucus membrane of the stomach and bowels is frequently implicated; irritability, irregularity or congestion of the circution, may be induced and consumption hastened in its progress. When thus complicated, one or more diseases acting in consort, the progress of both will be accelerated, and the result rendered more doubtful. In severe cases of long continuance we usually find the disease complicated with some disorder of the liver, stomach, or bowels; if the abdominal derangement be repaired, and the healthy nutrition of the system insured, the patient will frequently recover from a condition that appears surrounded with danger.

#### THE TREATMENT.

When the disease is of recent date, and is the termination of an acute attack, a complete cure may speedily be effected; in cases of longer duration, especially those in which the texture of the bronchial membranes has undergone a morbid change, the return to health is more tardy and more difficult to attain. Our first object should be to allay the more urgent symptoms as they arise, and, as in all cases that require time to complete the recovery, we must maintain the stamina of the frame by regulating the habits, diet, clothing, exercise, etc., and in every way possible economise the strength of the patient, to enable him to sustain the continued irritation and exhaustion which chronic bronchitis invariably produces.

General blood-letting, or local depletion is rarely required for in the majority of cases the disease is really one of debility, and when bleeding is injudiciously employed, we always find the weakness of the patient, which is commonly the worst symptom, greatly increased, without one particle of benefit being obtained in the chest affection.

Blisters, which in acute bronchitis increase the general irritability of the system, and therefore effect only a qualified good, are of considerable service in the chronic form, when there is not so great a degree of excitability; but as the benefit accruing from their use is for the most part limited to the continuance of the discharge, and as many patients have a valid objection to the pain caused by their frequent repetition, we can seldom rely on them alone for the removal of the deep-seated inflammation in the bronchial tubes, the best counter-irritant we possess is the tartar-emetic ointment, which may be controlled by attention, to any degree of irritation we desire; the effect of this preparation is to excite a crop of pustules, in appearance closely resembling the eruption in small-pox, which speedily discharges a healthy pus that may be easily regulated by the cessation or renewal of the application. In innumerable cases of severe chronic bronchitis, I have seen the worst symptoms quickly subside so soon as a part of the

surface of the chest discharged a healthy matter; I have seen the expectoration which before was decidedly purulent, become mucus, and the cough which hitherto had been suffocating and exhausting, become less frequent and loose. It was on the counter-irritation caused by this ointment that the arch-empiric, St. John Long, relied as his panacea for all diseases of the lungs;—another example of abuse of a remedy being mistaken for its use.

The use of expectorants in cases attended with profuse expectoration has been condemned by many writers and practitioners,-they say why increase a discharge which is already exhausting the patient? This argument, I admit, would hold good did they only keep up or increase the expectoration; but they do more,-they also modify its quality. As a proof of this we have only to refer to their effect on the expectoration in acute bronchitis; that which was watery. saline, and irritating becomes, by the employment of expectorant medicines, thicker, bland, and ultimately less in quantity; and from constant practice I am convinced of their like beneficial action in the chronic disease. Their use, however, deserves the greatest circumspection whenever the expectoration is purulent, or whenever there is any approach to hectic. When the expectoration is viscid and coughed up with difficulty, we may with considerable advantage increase the dose of an expectorant, such as ipecacuan, until it produces an emetic effect, which may be safely repeated so frequently as the breathing is obstructed by an overloaded state of the bronchial tubes. In mild cases where there is no attendant disorder of the stomach, ipecacuan is a most valuable remedy and may be given in the form of powder or of wine-a grain, or two grains of the former, thirty drops

of the latter—three or four times a day, with decided benefit; it is also a proper adjuvant to other remedies, its use being forbidden only when there are profuse night-sweats. Squill ranks next in importance, and when combined with an alkali as the liquor potassæ or the subcarbonate of potash, has the property of solving and facilitating the discharge of the ropy, tenacious mucus; as it also acts upon the kidneys it may be prudent to add a minute quantity of morphia to prevent it passing off too quickly in the urine. Squills are improper when there is any purulent expectoration.

The lobelia inflata is a remedy which I think is not appreciated in this country as it deserves; from long, and I may be excused when I add extensive experience in its use, I am justified in classing it amongst the most valuable remedies we possess in all cases of bronchitis in which the cough is violent and suffocating, and expectoration difficult; it relieves the dyspnœa, soothes the irritated mucous surface, and in some cases will immediately check what otherwise would be a severe paroxysm. The acids, particularly the nitric, acetic and benzoic acid, are of essential service, they assist in "cutting the phlegm" as patients sometimes describe it, they are sedative and tranquilise the system, and are tonic and add to the strength by improving the appetite.

Balsamic medicines, as the balsam of Peru, myrrh, turpentine, and that nauseous drug copaiba, are often useful when there is not any tendency to active inflammation or disorder of the stomach; they appear to diminish the bronchial secretion by their astringent properties, and at the same time they render the secreted matter easy to expectorate and gently stimulate the lungs to throw it off.

Ammonia, musk and assafeetida may be occasionally employed with benefit in patients greatly debilitated when

the cough is spasmodic or convulsive: the following forms a valuable pill:—

Take—Assafotida, 1 scruple;
Ipecacuan powder, half a drachm;
Powdered squills, 10 grains;
Castile soap;
Syrup of tolu sufficient to form a mass: to be divided into sixteen pills—One to be taken every four hours.

Whenever there is great irritability of the system with sleepless nights, we must have recourse to narcotics, but as they are liable to check the expectoration and hazard local congestion, they require the greatest care in their administration, and should only be given occasionally for the purpose of affording a night's rest. Opium is the chief ingredient, perhaps the only medicinal one, contained in advertised cough nostrums, and the deadening of the sensibility and probable absence of the cough whilst the patient is under its influence, is in too many instances looked upon as a permanent benefit: the sufferer is, however, soon undeceived by the return of all the symptoms in greater force, and the disease becoming confirmed and lasting. Conium and hyosciamus are far preferable to opium, as they yield all the soothing effect of the latter without so great a risk of doing mischief.

I do not stop to notice medicated inhalations for the reason that I have no faith in this mode of treatment.

### COMPLICATIONS OF CHRONIC BRONCHITIS.

When aged persons suffer from a severe attack of chronic bronchitis, the result of repeated and neglected invasions of the disease, we find in a large majority of cases that the patient at the same time labours under some derangement of the general health, the effects of which are aggravated by the exhaustion and debility produced by the cough and expectoration.

If the bronchitis be complicated with indigestion, the patient complains of distention of the stomach with wind and a choking sensation when it is expelled; the cough is increased so soon as food is taken, and the lungs feel as though pressed upon by an unnatural weight; there is pain in the right side, and at the right shoulder in particular; the region of the stomach is tender and the least pressure affords intense pain, the tongue is foul, the appetite lost, the evacuations scanty and of an unhealthy colour, the urine is high coloured and turbid, the skin at one time hot and dry, at another, bedewed with a clammy perspiration. In such cases the abdominal disorder merits equal attention with the more prominent symptoms of the chest, and until we restore a healthy action in the digestive organs we can hope for but little permanent relief. Small doses of bluepill should be given so as to produce an alterative effect and gently stimulate the liver to pour out healthy bile: the flatulence and acidity should be corrected by the occasional exhibition of alkalies, especially the tris-nitrate of bismuth; the tone of the stomach should be regained by cascarilla, colombo and quinine, and paramount to all, the cause of the disordered stomach should be removed by strict attention to a proper diet.

We have two objects to attain by means of diet; first, to prevent the stomach being irritated and impeded in its function; second, to support the strength without stimulating or exciting the system. In disease, I would advise every one to pay the same attention to his diet as he would do to the drugs prescribed for his cure; I shall therefore condense my remarks on the regimen for chronic bronchitis complicated with indigestion to a prescription.

Take, for breakfast, coffee, strong, not boiled, but infused;

in quantity not exceeding half-a-pint; little sugar, little milk; dry toast or biscuit, as much as satisfies the appetite. Dinner, a lean mutton chop, broiled, stale bread, and halfa-pint of bitter ale; the meat to be well masticated, the ale to be sipped, so as to mix with the solids, and not drank at a "gulp." Tea, the same as breakfast. In the evening, at least one hour before going to bed, a biscuit with a wine glassful of sherry in half a tumbler of cold water; a little cold boiled rice with black currant jelly, raspberry jam, or marmalade. During the day sip occasionally a small quantity of linseed tea or barley water, slightly acidulated with lemon juice, so as to moisten the mouth, diminish thirst, and lubricate the throat. The smaller the quantity of fluids taken the better for the stomach, for if that organ be distended by liquids its natural juices are diluted, they become insufficient to dissolve the solid matters, digestion is arrested, and the nutrition of the body, as a consequence, is deficient.

Occasionally the patient labours under some considerable degree of fever—more than usually attends chronic disease; the tongue is then florid, the thirst frequent, the bowels constipated, the skin dry, and the pulse accelerated; there is continual restlessnsss and anxiety, the nights are passed without sleep, and there is great dislike for food; so that by the irritability and debility of the system the disease is involved in considerable danger. We must then endeavour to relieve the bowels by a purgative, such as a scruple of rhubarb powder with a drachm of the tartrate of potash in simple water; the fever must be combatted by saline medicines combined with such as will ease the cough, and the diet must be confined to gruel, sago, arrow-root and other farinaceous and milky food. When there is much tenderness over the abdomen, as frequently happens, it may be advisa-

ble to apply a few leeches, or to keep the body fomented with hot flannels. In cases attended by fever all the symptoms are greatly aggravated towards night.

Retention of urine, or difficulty and pain in passing it, is a constant cause of uneasiness in the chronic bronchitis of the aged: the fluid is of a thick or ropy consistence, unpleasant and pungent in its odour, and small in quantity; much pain is felt around the lower part of the body, and darting pains are experienced at each attempt to obtain relief. Full doses of squill with the infusion of buchu leaves, combined with mucilaginous drinks so as to afford a diuretic as well as an expectorant effect, afford great relief. When the urine is pungent and of an ammoniacal smell, small doses of nitric acid and tincture of hyosciamus in the infusion of pareira brava, is an excellent remedy. The patient will derive great comfort from the frequent use of a warm hip-bath.

General or local effusion of fluid—dropsy—is frequently associated with this disease: within a very recent period I have attended three cases in which as well as bronchitis the patients suffered from water on the chest; the disease thus complicated is one of the greatest danger. The legs and ankles are frequently infiltrated with fluid, which renders them painful, tense and throbbing. The least swelling or puffiness around the lower eye-lid, especially on getting out of bed in the morning, is a symptom that demands the immediate attention of the practitioner.

Chronic bronchitis is a constant cause of debility that may reduce the strength of the patient to the lowest ebb. In the absence of fever we must endeavour to give tone and power by a generous diet and tonic medicines, particularly colombo and quinine, and occasionally stimulants, as wine and brandy in guarded quantities are required. When profuse perspirations add to the exhaustion, small doses of dilute sulphuric acid will have a good effect, and the chest may be sponged with tepid vinegar and water, and afterwards carefully dried.

It is of the greatest importance that those who are subject to this disease should avoid exposure to cold; the rooms they inhabit should be kept warm and of a uniform temperature, they should be careful in guarding against any sudden transition from this temperature to the cold air of passages or other rooms not equally warmed, and when obliged to encounter the change the mouth should be protected by a respirator or silk handkerchief. The feet must be kept warm, and the same description of attire constantly worn; it is most imprudent to wear a double-breasted waist-coat one day and a single-breasted one the following; equally hazardous is it in women abruptly to change a woollen or silken dress for one of muslin or other light and insufficient material.

Change of air and strict attention to regimen will frequently do more for chronic bronchitis than medicine; in cases of long continuance the removal to a locality which the experience of the patient has proved to agree with him will in some instances effect more good in twenty-four hours that the most persevering "drugging" for as many weeks.

The means that should be employed to prevent a recurrence of chronic bronchitis are such as will give greater tone and power to the whole frame and render it less susceptible of the causes which produce the disease.

I beg to refer the reader to the chapter on the "Means of Prevention" in my little book "on Consumption," which is equally applicable to the prevention of all other chest diseases.

# ASTHMA.

Asthma, in familiar language, has a most comprehensive signification, as difficulty of breathing, from whatever cause it may arise, is generally described by this term. Asthma, properly so called, is confined to that condition of disordered respiration in which the difficulty of breathing is temporary, but recurring frequently, accompanied by a wheezing sound and sense of constriction in the chest, with cough and expectoration; it is, in fact, that state which is known by the vulgar phrase, broken-wind.

Asthma is the result of a nervous, spasmodic constriction of the bronchial tubes, which constriction extends to the muscles of respiration. This theory of asthma was for a considerable time denied, and it was then said to be caused by the infarction, or clogging up, of the bronchial tubes with a superabundant effusion of mucus. As the disease so seldom proves fatal during a paroxysm the opportunities of examining the state of the lungs after death have consequently been rare; and when effected little or no trace of actual disease or disorganization of the lungs has been discovered. Laennec says-"I have met with many cases in which it was impossible, after the most minute search, to find any organic lesion whatever to which the asthma could be referred."-And Ferrus, who tells us that he spent fifteen years in hospitals, says he has not met with a single dissection which could be fairly considered as exhibiting the results of simple or idiopathic asthma.

If the examination of the lungs and their appendages of persons who have died of this disease has shed no light on its precise pathology, yet, the minute dissection of the healthy lung has fully confirmed the possibility of asthma being a spasmodic disease, and the probability that all other theories are erroneous. Reisseissen, of Berlin, was the first who ascertained the existence of a set of complete circular fibres around the bronchial tubes, which begin at the point where the cartilaginous rings terminate, and Laennec conceives that the spasmodic contraction of these fibres prevents the transmission of air to a great portion of the lungs. The assertion of Sir John Flover, himself an asthmatic, fully confirms this hypothesis, and furthermore that the constriction of the chest is not caused by the infarction of mucus. He says, "The lungs do not appear to be much oppressed with phlegm before the fit; and, at the end of the fit the straitness goes off before any considerable quantity is spit up." In some cases of dry convulsive asthma there is but little mucus, sometimes none, expectorated from the beginning to the end of the paroxysm; the suddenness of the attack, is abrupt departure, frequently without leaving any succeeding annoyance, must also be considered proofs of its spasmodic nature.

#### THE CAUSES.

Asthma is a disease of middle and advanced life rather than of youth, it attacks either sex indiscriminately, although more common in the male than in the female, it pervades all classes, and is not peculiar to any particular constitution, as the robust and the weak are alike obnoxious to its invasion, but is more prevalent in those who are of a nervous temperament or plethoric habit. Certain occupations that have the effect of impeding or impairing the respiratory functions appear to exert a baneful influence in exciting the

disease: amongst them may be named such as require exposure to sudden and great changes of temperature, those that require the body to be kept in a position which mechanically interferes with the free movements of the chest, and those that subject the individual to an irritating atmosphere in which there are acrid fumes, dust, or deleterious particles in minute subdivision. Persons who have to make great and frequent efforts with the lungs and vocal organs are also rendered prone to an attack, or rather series of attacks, for asthma quickly becomes habitual.

It has been stated by some medical writers, particularly by Diemerbroek and Bree, that persons who are accustomed to smoke tobacco are rendered more liable to the disease; if this be correct what a nation of asthmatics we shall become, now that every urchin smokes his "cuba" or meerschaum!

The exciting causes of asthma are many, indeed they are so numerous that it is seldom we can correctly ascertain what may or what may not become an exciting or predisposing cause. To speak in general terms, I may say, that whatever creates an irritation within the chest, and whatever induces a convulsive constriction of the moving powers of respiration, are sufficient to produce that spasmodic breathing which constitutes the disease now under consideration. Willis, probably the most classical medical writer of whom we may boast, says—"Asthmatics can bear nothing violent or unusual. From excess of heat or cold, from any great bodily exertion, or mental emotion,—from change of season or weather, from errors, even of a slight kind, in the non-naturals, and from a thousand things besides, they fall into fits of dyspnea."

First among the predisposing causes must be classed hereditary transmission; thus we frequently see several members of the same family similarly affected, and we frequently hear the remark—"my grandfather, my father was the same; they were always asthmatical." Although in some families asthma becomes an heir-loom, it may be held in abeyance for an intermediate generation, the grandfather being affected, the son escaping, and the grandson suffering.

Malformation of the chest is a frequent cause; a narrow chest, high shoulders, and deformed spine is rarely unattended with difficulty in breathing of a spasmodic character. When the glottis, or opening of the windpipe into the throat, is of small size, or narrower than natural, or when the bronchial membrane is readily irritated, we invariably find that the breathing is laborious and spasmodic; thus a neglected chronic catarrh, or chronic bronchitis is frequently succeeded by confirmed and continued asthma.

Of all the causes, proximate or remote, protracted indigestion is the most productive. It seldom happens than an individual, subject to dyspepsia, is free for any length of time from difficulty in breathing; the spasmodic pains that attend this disorder are not confined to the stomach and abdomen, but rapidly extend to the lungs and the other organs of respiration. A person affected with gout is generally a sufferer from asthma during the intermissions; rheumatism also alternates with it: some affections of the skin: the sudden suppression of any accustomed discharges, as the healing of ulcers, and "bad legs" are in many instances exchanged for a violent and spasmodic difficulty in respiration. In females asthma is frequently dependent on, or caused by certain peculiar irregularities and changes. Excessive fatness, and a plethoric state of the whole body; suppressed perspiration; sudden change of occupation, as from exercise to confinement; luxurious and sensual habits; indolence;

irregularities in dress and in diet, may all become at one time or another incentives to this most distressing disorder.

Systematic writers have described asthma under several forms or varieties, but for all practical purposes the division of the disease into dry, or nervous asthma; and, into humid, catarrhal or common asthma, is the best; in fact the other types of asthma are only complications or modifications of one or other of these divisions.

## DRY, OR NERVOUS ASTHMA.

Dry asthma, which is the convulsive asthma described by Willis, Hoffman, Floyer and Akenside, is usually preceded by languor, flatulence, head-ache, heaviness over the eyes, sickness, pale urine, disturbed rest, and a sense of straitness or fulness around the chest, with considerable anxiety.

The late Dr. Bree, who suffered severely from this complaint, thus describes the premonitory hints he experienced, he says—"When the evening approaches, the weight over the eyes becomes most oppressive, and the patient is very sleepy. Frequently, at this period, there is a tingling and heat in the ears, neck and breast; and a motion to expel the contents of the bowels is attempted, with some violence and with great uneasiness of the abdominal muscles. When an asthmatic feels these warnings he may be convinced that his enemy is at hand." Headache of a violent character, restlessness and fretfulness towards evening, dryness of the throat and nostrils, with other symptoms that indicate some slight degree of fever are generally noticed previous to the commencement of an attack.

The primary disturbance usually sets in towards the evening, and the patient retires to bed dispirited and apprehensive of the approaching evil; about the middle of the night, frequently during his first and soundest sleep, he wakes suddenly, and feels a most distressing tightness about the chest, as if he were bound with cords; his anxiety is inexpressible, and he labours for breath as though every moment would be his last; he starts up gasping, panting, and wheezing, and endeavours to reach a window or door whereat he may obtain that which he appears only to care for—fresh air; and regardless of cold, patients under such a paroxysm will sit for hours at an open window, even in the depth of winter.

In some cases the patient does not immediately awake, but remains in a state of half-consciousness, similar to nightmare, for some time aware of the approach of the disease, but without the least ability to make any effort to resist it; when at length the oppression is overwhelming he throws himself into an erect posture, relieves himself of the weight of the bed-clothes, and breathes distressfully, with a wheezing sound. The apartment in which he may be appears too close and confined, and he yearns for and endeayours to obtain cold air at every risk. It is remarkable. and a fact which every physician must have observed, that a patient in this condition will bear the most sudden and severe exposure to cold without any immediate or subsequent ill consequence. The heart palpitates with violence; the pulse is small, frequent and intermittent; the stomach and bowels are distended with flatulence; there is a sensation of sinking and faintness; the bowels sometimes becomes suddenly relaxed, and discharge a slimy, frothy evacuation of a greenish colour; the countenance is haggard and betrays the greatest anxiety; the face is pale, more commonly bloated and livid, or purple; the body is covered with a profuse clammy perspiration, whilst the extremities are always cold. There is a tickling dry cough, and the patient makes repeated and ineffectual attempts to expectorate without being able to spit up any thing but a little frothy mucus; after a time the cough becomes constant, and when it has continued for two or three hours relief is at last obtained by the expectoration of a tough, viscid mucus, which gradually becomes more copious, and, as it increases in quantity, so do the more urgent symptoms diminish in intensity. The expectorated matters are frequently tinged with blood, and when this happens the relief appears to be more decided and immediate: as a consequence the after effects are then more serious.

One peculiar symptom in this form of asthma, and it occurs as well in another nervous disorder,—hysteria—is the escape, and sometimes the involuntary escape, of a large quantity of pale limpid urine.

The feelings of a patient during a paroxysm of asthma are not those of pain, as the word pain is generally understood, but rather those of intense anxiety, and a sense of impending suffocation:—what I mean is, that he does not experience any darting, shooting, or throbbing pain, but suffers only from constriction of the chest, and inability to inspire a sufficient quantity of air; every asthmatic will, however, quickly admit that these sensations are more agonising than those which are usually defined by pain.

The duration of an attack of nervous asthma seldom exceeds three or four hours, at the end of which time the constriction of the chest begins to subside, the breathing is deeper and more free, the cough becomes comparatively easy and loose, and a copious expectoration of mucus follows.

The change that now comes over the patient is most marked: from a state of appalling anxiety, he is restored to almost perfect tranquillity; exhausted by the previous exertion and gasping, he will fall into a composed and soothing sleep. On the following day some constriction and tenderness of the chest is generally experienced, and this in some fortunate but rare instances, is the only evil arising from the preceding excitement; in others, the paroxysms make their appearance night after night for a week or longer. Sir John Floyer mentions a case in which the fits recurred for seven weeks together, during the whole of which time the patient was obliged to sit erect in a chair; and an instance occurred in my own practice in which the disease continued with very short intermissions for twenty-seven days.

## CATARRHAL, OR COMMON ASTHMA.

Catarrhal asthma is the more frequent form in which this disease presents itself: it is thus characterized—the paroxysm comes on gradually; the constriction across the chest is heavy and oppressive; the cough is severe; the expectoration commences early, and is at first scanty and viscid, afterwards it is copious and then affords considerable relief.

Like dry catarrh it sometimes appears without any obvious cause; in the majority of cases, however, the person affected suffers from an habitual catarrh, which predisposes him to an attack upon the least exposure to cold, or any aggravation of the more simple and original disorder. We frequently see individuals who are so susceptible of cold, and liable to "catch cold," that they are seldom, if ever, free from some discomfort at the chest; any alteration in the dress, the least draught of cold air, a damp boot, standing for an instant on a cold or wet pavement, in fact any thing that may cause a sudden chill is an all-sufficient cause for cough, irritation and difficulty of breathing. Now, invalids thus circumstanced—

and really the amount of such disturbance of the system justly merits that the term invalid should be applied to them-too frequently take no heed of a cough which has been their constant companion for several years; like the visit of an old friend, the return of the "old cough" is received without ceremony, without preparation, or any intention to hasten its departure. Sometimes an old friend, taking advantage of our kindness and hospitality, ventures to bring with him a rude, boisterous acquaintance of his own, who soon revels in the library and drawing-room, and scatters confusion and riot throughout the house:-in like manner the "old cough" introduces a disreputable hanger-on, named Asthma, who rapidly and permanently disarranges the economy of the whole system, and banishes all ease and comfort. The old proverb, "too much familiarity begets contempt," may be thus parodied, "too much carelessness begets disease."

Common asthma is generally a symptom of, or the sequel to protracted indigestion, gout, hyochondriasis, syphilis, and hysteria. There appears to be in many persons a natural predisposition, or idiocyncrasy, for this disease; the most powerful exciter of asthma, under such circumstances, is ipecacuan, which in some instances has the property of causing cough, constriction and spasmodic breathing immediately it is exposed to, or inhaled by the individual so predisposed; the effluvia from hay has a similar effect. A noble duke is a great martyr to the disease thus produced, and is compelled to reside on the coast during the hay season. The smoke of sealing wax, the fumes of chlorine, carbonic acid gas, etc., occasionally act in the same manner.

The symptoms of common asthma closely resemble those of nervous asthma; the attack, however, is generally of longer duration, and occasionally more severe; the real paroxysm of spasmodic breathing is slow in its progress. and does not so instantly seize the patient, whose breathing is constantly laborious and wheezing. A paroxysm of catarrhal asthma is always attended with dyspnœa of an aggravated kind; each inspiration is performed with an effort, in which the whole body has to assist, the shoulders are drawn up, the ribs elevated, and the abdominal muscles as well as the diaphragm are also called into action. The cough is frequent and distressing, and sometimes so rapid and convulsive as to threaten suffocation. The secretion of mucus within the bronchial tubes is considerable, but it is so impacted within them that the patient cannot obtain relief by expectoration; after a time a small quantity is discharged. and as it increases the more urgent symptoms of the paroxysm subside; after some hours of great suffering the patient feels less anxiety, he breathes more leisurely, and with less labour; and as the expectoration becomes more profuse and easy, so does his tranquility return.

A person who suffers from a particular disease, and who has the ability to describe his feelings, possesses greater advantages in writing the history of the complaint than he who watches or visits a patient so afflicted; I therefore quote the following admirable and correct remarks from the writings of the late Dr. Bree, who like Sir John Floyer, suffered constantly and acutely from asthma. He says—"even on the second day," after a paroxysm, "no change of posture is made with impunity, a particular distress affects the patient if he engage in the fatigue of dressing whilst the stomach is empty. During the day if no particular hurry occur, the breathing generally becomes more free till the evening; an inexperienced asthmatic even flatters himself that his disease is leaving him; but he finds, at the ap-

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proach of night, that he must sustain a new attack. The paroxysm recommences with the usual symptoms, and the night is passed nearly as the former; but the sleep is more perfect, and productive of more relief. The third day the remission is more complete, there is some additional expectoration, and bodily motion is performed with less distress, but still with great inconvenience. After the paroxysm has been renewed in this manner for three nights, the expectoration becomes free; but there is no certain termination of the fit at a fixed period. However, except in particular cases, it generally goes off in a few days. As the daily remissions become more perfect, the urine is higher coloured, and in smaller quantities; the expectorated mucus is more copious and digested; strength of the pulse and vigour of action increase; and good humour again enlivens the mind."

By the aid of the stethoscope, we invariably discover a low, hollow murmur, when the patient inspires, and during respiration, a loud, hissing rhonchus, or sound like a person snoring, which may sometimes be detected by the naked ear, like "the sighing of wind through crevices;" sometimes it is a continuous wheeze of a graver sound, not unlike a moan. Except towards the termination of an attack, we seldom detect the passage of air through accumulated mucus; indeed, the sounds always resemble the *wheeze* caused by air passing through a tube of very small calibre, rather than the *rattle* caused by air passing through fluid.

Asthma cannot easily be confounded with, or mistaken for any other disease by those who have had frequent opportunities of watching the affection. In women, who are subject to hysteria, we frequently observe an attack of dypnæa, almost convulsive, that closely resembles nervous asthma; but in such cases the paroxysm is of very short

duration, and the natural breathing is restored without the employment of those means which are serviceable in asthma. Young children occasionally suffer from a suffocating affection of the throat, which in intensity equals an attack of violent asthma. Some severe cases of bronchitis may be mistaken for asthma, but if it be borne in mind that in the latter the invasion of the disease, in its violence, is in nineteen cases out of twenty sudden and always unattended with fever, the real character of the affection may be detected. Difficult breathing, arising from certain diseases of the heart or large blood-vessels, frequently similates asthma, but there are so many diagnostic signs specifically characteristic of each that the distinction may be readily drawn by the practitioner.

#### THE TREATMENT OF ASTHMA.

The treatment of asthma must be conducted in reference to the state of the patient during a paroxysm, and to the state of the constitution after the paroxysm has ceased:—we must relieve the patient's sufferings during the fits—prevent their recurrence, by the removal of the predisposing and existing causes, improve the general health, and give tone to the system.

During the paroxysm we must depend for relief on the employment of one or more of the following remedies, modified according to the exigences of each individual case.

Emetics and nauseating medicines have been found highly useful in both species of asthma, and when we have reason to apprehend that the stomach is much loaded, an emetic should always commence the treatment; they also act by depressing the vital power, and consequently relaxing the convulsive or spasmodic action, we may therefore place con-

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siderable confidence in them during the intensity of the fit.

In strong and otherwise healthy persons full doses of tartar emetic, ipecacuan or the tincture of lobelia inflata, may be given with great advantage. Strange as it may appear ipecacuan, which in some instances has the property of exciting the disease, is found most beneficial in the cure of it in others: Akenside-who was not merely a poet, but also a medical writer of no mean order—was a great advocate for its use; he says, that after it had produced the emetic effect "it failed not to give great and immediate relief." Squill, used for the same purpose, has been lauded by men well versed from personal experience in all the remedies for asthma-Floyer and Bree. In practice I have found a combination of ipecacuan, squills, and antimony, productive of the most instantaneous and continued relief, commencing with such doses as will in the first instance produce an emetic, and afterwards continue a nauseating effect. By such means we relax the spasm, induce a mucus secretion and facilitate its expectoration. Oily and mucilaginous expectorants are not proper, as the stomach of an asthmatic is generally too much disordered to admit of their exhibition.

Blood-letting in some extreme cases in which there is reason to apprehend congestion, or in which the pulmonary circulation is much impeded, may be necessary in persons of a full plethoric habit, but should never be resorted to as an habitual remedy; when, as occasionally happens, there is great disturbance in the head, with lividity of the countenance and stupor, cupping will be of the greatest utility in removing the immediate cause of danger, but it should never be persisted in after the chief indication for its employment has ceased. Much mischief has been incurred by the indiscriminate use of the lancet in asthma; frequent bleeding

may permanently injure the constitution and lay the foundation of dropsy. "I have repeatedly," says Dr. Bree, "directed bleeding; but I have never had reason to think that the paroxysm was shortened an hour by the loss of blood. In old people, who have been long used to the disorder, it is certainly injurious."

Several of the fœtid gums have obtained some fame: the gum ammoniac in particular, often effects considerable benefit, in the common asthma of elderly persons it certainly is a valuable and useful remedy whenever there is a comparative healthy state of the stomach and digestion is good, but should the latter be impaired, it can seldom be employed without increasing the dyspensia; assafætida has occasionally been employed with much benefit, but as it is highly stimulating and heating, and apt to irritate the bowels, it can only be employed in such cases as are entirely free from all irritation or inflammatory action, when used it should always be conjoined with some saline medicine, as the carbonate of potash or liquor potassæ. Musk, camphor, opium, ether, and other anti-spasmodics are of great utility in nervous asthma, they should all be administered with much caution and in the smallest doses, until we are assured of the good impression they make on the disease, and the effect they produce on the system. Onions are frequently eaten to some extent by patients who habitually suffer from this disease: they certainly are a useful esculent when there is not any irritability or quickness of pulse.

Stramonium was, at one time, considered the "matchless specific," and when introduced into England by Dr. Sims, it was pronounced by asthmatics to be the "divine stramonium," and from many recorded cases, and some that have come under my own observation, it certainly is a remedy

which must not be slightly passed over. The manner in which it is employed is by smoking during a paroxysm, the same as tobacco; its effects are heat in the chest, a copious expectoration, and some giddiness and nausea. Tobacco has also the merit of affording relief, but as those who resort to it are generally confirmed smokers who only continue an ordinary habit, its curative effect is less noted; when, however, a novice in the pipe makes trial of tobacco, and the full nauseating and expectorating properties of "the weed" are produced, a still greater benefit may be expected. I am constantly asked by asthmatics, "may I smoke?" Certainly they may; if it is the constant custom of the patient, it can do no injury; if not habituated to it, it may, by assisting or increasing expectoration, afford some respite from suffering.

Medicated inhalations have been and are strongly advocated by many physicians; my own opinion is adverse to their use. It is impossible that any fluid so pure, so bland, so natural, can be supplied artificially to the lungs as the atmosphere by which we live, and in our attempts or experiments to discover any gas or compound vapours likely to be of service, we may commit a decided injury. The vapour of tar, naptha, oxygen, chlorine, and many other gases have been recommended, and, alas! too frequently recommended only to compel the purchase of some expensive inhaler. "A pipe of tobacco" is the only medicinal inhalation I advise, as we know the extent of mischief likely to be incurred should it prove hurtful.

A most innocent, and in some cases a most effectual means of relief, is obtained from the medicinal acids, particularly the vegetable acids. Their precise mode of action is doubtful; by some they are said to act as sedatives, and thus allay irritation or spasm; by others, that they act as tonics, and

thus invigorate the bronchial exhalents; we must, however. be content with knowing that they act beneficially, and that it is seldom, if ever, that their administration is injurious. The most frequent, and in every way the more preferable mode of employing the vegetable acids, is in the form of acetic acid, or vinegar, and many popular remedies familiar to every asthmatic have this for their chief ingredient. When combined with a diaphoretic, as a small dose of ipecacuan, the remedial power of each is augmented; after one or two doses the patient will frequently find the constriction of the air passages lessened, and a tolerably free expectoration of mucus follow: the vinegar of squills-the basis of the well known oxymel and syrup of squills-has been a common and safe remedy during several generations, and still retains its popularity amongst those who have no other means of judging of the propriety of its use than its efficacy in previous attacks. I have frequently prescribed, with marked advantage, nitric acid in the manner advised by Dr. Bree, that is, three or four grains of the extract of henbane, with five, six, or eight drops of nitric acid in a wine glassful of water, every three hours during a paroxysm. A personal friend, an asthmatic, has these remedies constantly in his chamber, and resorts to them with confidence whenever threatened with a paroxysm.

Purging, as an active remedy, is rarely beneficial except when the attack can be distinctly traced to an overloaded stomach and intestinal canal, or a disordered liver: when the asthma is the original disorder and not dependent on other malady or functional derangement, especially in persons of advanced age and infirm constitution, a powerful purgative will increase the exacerbation at the chest rather than retard or diminish its severity. It is, nevertheless,

expedient in all cases to keep the bowels moderately and regularly open, and if this can be accomplished without aperients so much the better.

A simple, pleasant, and accessible remedy is coffee, which formerly had a considerable reputation for its curative or alleviating properties. Sir John Pringle says that "Floyer, during the latter years of his life, kept free from, or at least lived easy under his asthma, from the use of a very strong coffee." In many cases I have found it useful as an adjuvant, but never sufficiently energetic to be relied on alone. It should be drank very strong, made of the best Mocha coffee, newly roasted, in the proportion of an ounce to half a pint of boiling water, infused, not boiled, and taken every half hour without milk or sugar.

Remedies termed derivants, or these which excite an artificial irritation or determination remote from the actual seat of the disease, as blisters, mustard poultices, are in general use on the continent, especially by the French physicians; the application of blisters to the calves of the legs, mustard poultices to the soles of the feet, or the feet immersed in hot water in which a considerable quantity of nustard has been mixed, will now and then prove useful.

I have yet to speak of a remedy on which I place the greatest dependence,—I could almost term it the sheet anchor of an asthmatic—that is lobelia inflata, which appears to exert a peculiar influence on the bronchial mucous membrane. It may be assumed that it diminishes any spasmodic constriction that exists, and at the same time causes a secretion of mucus of a demulcent and soothing character. The dose ranges from twenty drops to a drachm of the tincture in a wine glassful of the decoction of senega, every three or four hours.

I have now recited the chief remedies that are available during the paroxysm, and it must be admitted that they appear indefinite and even opposite; in their employment we must be guided in our selection alone by the state of the patient at the time he is seized, and the good or bad effect which the experience of every asthmatic will award to each individual remedy. It has been justly remarked that "it remains yet to be proved if, in the majority of cases of asthma, medicine possesses any resources superior to those found most useful in simple catarrh."

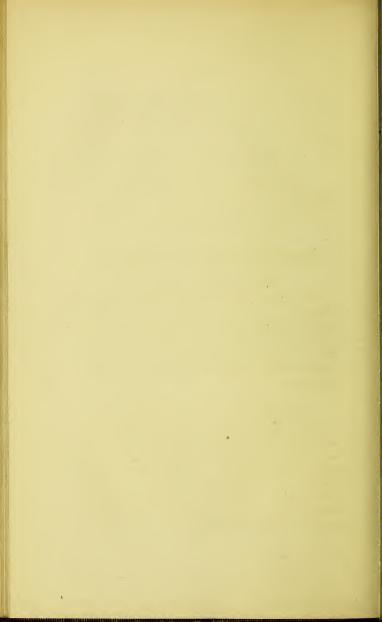
The treatment during the intermissions, when the patient is free from the paroxysms, merits the best care of the medical attendant, as well as that of the person liable to a return of the disease; the means to be employed must be regulated by such peculiarities as each case presents, our chief aim being to remove any irregularity or disorder of the system which may act as an exciting cause, and so to invigorate the frame as to give it the power of resisting noxious influences. As frequently happens the asthma is complicated with a "bad stomach" which must be corrected by the means applicable to indigestion in all its protean forms; the food should be light and nourishing, without being in the least degree stimulating; a dry diet of animal food, with little or no vegetables; not any fish, salted meats or pastry; and the smallest possible quantity of all kinds of fluids, taken cool, will best agree with the stomach, and materially protract the invasion of the paroxysms. The state of the bowels should be carefully attended to, so as to produce regular evacuations without violent purging; for this purpose moderate doses of the compound rhubarb pill, or aloetic pill may be taken occasionally,

When the disease succeeds to some suppressed discharge we must endeavour to restore the accustomed evacuation, or artificially to excite some other, and probably more innocent outlet.

When the state of the stomach does not forbid the employment of tonics, their use is of much service, for at the time that they give energy to the whole frame, they also enable the respiratory organs to resist such influences as have heretofore proved injurious. It is a sadly mistaken notion that these remedies are proper in all cases which are termed debility; until the cause of the debility be removed they cannot possibly be of the least service, and in many instances they add to the mischief already incurred; they are, therefore, only secondary remedies, to be used to restore strength after active disease has been removed.

Many of the vegetable bitters will agree with the stomach when more powerful tonics would become irritating; cascarilla, columbo, quassia, and gentian, I am induced to rank in utility according to the position in which I have placed them; and, in treating convalescents, such as are asthmatics during the intervals of attack, I invariably commence a tonic course by an infusion of one or other of these drugs. As the stomach acquires greater power, quinine or iron may be prescribed without a risk of exciting so much irritability as would prohibit their continuance. The preparations of iron, as the tincture of steel, the sulphate and citrate of iron, are especially proper for persons of a lax habit, pale countenance and languid circulation; some of the chalybeate waters are in high repute as prophylactic, and as far as my own observation extends, those of Tunbridge Wells are the most appropriate.

When the asthmatic attacks return at regular intervals



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